

Volume 7

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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

BEFORE THE HONORABLE WILLIAM H. ALSUP

ORACLE AMERICA, INC.,)	
)	
Plaintiff,)	
)	
VS.)	No. C 10-3561 WHA
)	
GOOGLE, INC.,)	
)	
Defendant.)	
)	San Francisco, California
		Tuesday, May 17, 2016

TRANSCRIPT OF PROCEEDINGS

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7:23 a.m.

P R O C E E D I N G S

3 ---000---

4 (Proceedings were heard out of presence of the jury:)

5 **THE COURT:** Good morning. On this objection I got
6 overnight about stonewalling and Exhibit 9116, I need to see
7 the deposition. I can't tell if there was stonewalling, and
8 you lawyers are so good at quoting only part, I need to see the
9 whole transcript of the deposition. And tag the pages where
10 the stonewalling occurred so that I can see that there was --
11 there really was stonewalling.12 **MS. HURST:** Your Honor, while they're getting that, I
13 would like to make an offer of proof regarding the European
14 Commission document that Ms. Catz -- that we were offering with
15 Ms. Catz, if that's all right.16 **THE COURT:** Sure.17 **MS. HURST:** Your Honor, this offer of proof is going
18 to consist of five documents. I'll hand them up one by one.
19 They have been provided to counsel.20 First, Your Honor, is proposed Trial Exhibit 9219 with an
21 email from Ms. Catz at the bottom, and this demonstrates,
22 Your Honor -- which the witness is prepared to testify -- that
23 she was deeply involved at the time in the preparation of this
24 document for the European Commission.25 **MS. ANDERSON:** Your Honor --

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1 **THE COURT:** Wait. I've got to look at it.

2 **MS. ANDERSON:** Oh, sure, sure.

3 **MS. HURST:** Ms. Anderson if I could get through the
4 documents first --

5 **MS. ANDERSON:** I think it's important for the Court to
6 know that the first time we've ever seen these documents was
7 late last night; four of them last night, one of them this
8 morning. They were never produced in discovery. They're
9 covered with lawyers. As far as we can tell, these were
10 withheld on privileged grounds during the litigation. There is
11 no basis for withholding, setting aside all the hearsay
12 problems and other issues with these documents. I just want to
13 make sure the Court is aware of that.

14 **THE COURT:** Thank you for that. Let's get the offer
15 of proof. Okay. 9219, let me just say for the record, to
16 Tracy Coughlin from Henata Hesse.

17 **MS. HURST:** And, Your Honor, if you can see, that
18 email is forwarding the message from Safra and that was an
19 email from Ms. Catz saying, "As a follow-up to yesterday's
20 call, please forward to the entire extended team. The most
21 important thing we can do right now is to get the answers in
22 ASAP. ASAP means within 24 hours of getting them. I know
23 this is a huge task, but I know if it can be done, this team
24 can do it."

25 **THE COURT:** Is the Dan Wall here a lawyer.

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1 **MS. HURST:** Yes. Your Honor, that was Oracle's lawyer
2 at Latham & Watkins and Thomas Vinje was Oracle's lawyer at
3 Clifford Chance. And then --

4 **THE COURT:** Why are you showing me attorney-client
5 documents?

6 **MS. HURST:** Your Honor, because the charge was laid on
7 the table in connection with the objection made to the European
8 Commission document yesterday that the contents of the answer
9 to question 70 really came from Oracle and not Sun. And,
10 Your Honor, I would like to make an offer of proof to the Court
11 showing for preliminary purposes under Rule 104 that it was not
12 from Oracle and it was from Sun for the purpose of the Court
13 overruling the objection and permitting the witness to answer
14 that the contents of the answer came from Sun.

15 If the Court would bear with me for a second --

16 **THE COURT:** I'm going to bear with you, but this is an
17 extraordinary thing to reveal attorney-client communications.
18 Are you doing this on purpose and with conscious knowledge that
19 it's a waiver?

20 **MS. HURST:** Your Honor, we have, if necessary, to
21 produce with us here today a binder of all of the documents
22 concerning the preparation of the exhibit that we offered.

23 **THE COURT:** Well, I'm not ruling that this is in
24 evidence. I'm not going to rule anything on this until I hear
25 your offer of proof.

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1 **MS. HURST:** I understand.

2 **THE COURT:** But be aware that this is extraordinary.

3 **MS. HURST:** I understand.

4 As the Court can see, the email from the Oracle side gets
5 forwarded to the lawyers and client on the Sun side. So at the
6 top, Tracy Coughlin was a lawyer, in-house person, and Jonathan
7 Nemer, who is listed there on the two -- Jonathan Nemer was
8 Sun's -- one of Sun's chief intellectual property lawyers at
9 the time, and he was one -- and Ms. Catz is prepared to testify
10 he was one of the key people involved in preparing the answers
11 to the transaction.

12 Ms. Renata Hesse, who is listed here as forwarding this to
13 the Sun folks, she was the lead outside counsel for Sun in
14 addressing the European Commission. She was at Wilson Sonsini
15 at the time, and so you will see her name again.

16 Next, Your Honor, is Exhibit 9222. I'm sorry. 9220. And
17 this is an email from Mr. Nemer, who I just mentioned as Sun's
18 IP lawyer, to Sun's legal team, and, Your Honor, we are going
19 to look -- I'm going to roll this over at what was then
20 question 69 in the draft.

21 **THE COURT:** 9220 is a lengthy document from --

22 **MS. HURST:** Mr. Nemer.

23 **THE COURT:** -- Nemer to a lot of people, and it's
24 dated '09, July '09, and you've turned to page 16.

25 **MS. HURST:** Your Honor, if you see there on page 16,

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1 the question that we were talking about yesterday which
2 ultimately became 70 in the final submission, "Please explain
3 the conflict between Sun and Google with regard to Google's
4 Android."

5 Now, Your Honor, this was Sun's draft of the answer, Sun's
6 internal draft of the answer.

7 "The Dalvik Virtual machine, plus class libraries, which
8 together constitute the Android Runtime environment, are Sun's
9 perspective and unauthorized derivative work of Java SE for
10 which Google should be prepared to be as responsible as any
11 other copyright infringer. We think that it would be
12 inappropriate for Google, were it to do so, to seek refuge from
13 the Commission for Google apparently deliberate infringement of
14 Sun's IP rights. A recidivist bank robber should not complain,
15 at least to the authorities, that the bank's new owner might
16 increase security measures around the bank."

17 **THE COURT:** All right.

18 **MS. HURST:** That was Sun's draft, Your Honor. Then
19 what happens, Your Honor -- this is 9218 -- is Sun's outside
20 counsel, Allen & Overy -- I'm going to explain it first and
21 then hand it up -- deletes the kind of inflammatory part of
22 that answer. And this is 9218, Your Honor.

23 **THE COURT:** Okay. So it looks like from someone named
24 Mansfield to Nemer and a lot list of other people.

25 **MS. HURST:** Right. Mansfield is Allen & Overy,

1 Your Honor, and that's Sun's outside counsel at the time. So
2 the outside counsel is saying, "Here are our edits." You can
3 see it says 60 to the end, Your Honor, and we're talking about
4 69, which incorporate comments from the folks at A&O. And you
5 can see, Your Honor, if you look at the answer, now it's just
6 that first sentence about the unauthorized derivative work, and
7 the inflammatory recidivist bank robber language has been cut
8 down.

9 **THE COURT:** All right. What's your next document?

10 **MS. HURST:** All right. And then, Your Honor, this one
11 is 9222, which is not branded yet, but we're in the process of
12 getting that done. I've written the number on here.

13 Mr. Nemer complains. If you see there, from Mr. Nemer to
14 the folks at Allen & Overy and the folks at Wilson Sonsini and
15 down about two-thirds of the way, number 70, "Re Android, we
16 liked our recidivist bank robber analogy." So Mr. Nemer at Sun
17 is complaining that they took out the inflammatory language for
18 the final submission.

19 **THE COURT:** Well, who is -- what was his position,
20 Nemer?

21 **MS. HURST:** He was the chief of IP at Sun at the time.

22 **THE COURT:** Had he been a new person there or was
23 he -- was he a long-time person there?

24 **MS. HURST:** He was a long-time employee, Your Honor.

25 **THE COURT:** Okay.

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1 **MS. HURST:** And then, Your Honor, the final document
2 in the offer of proof is Exhibit 9221. Now, Your Honor, you'll
3 see this is where the document finally goes across to Oracle.
4 So up until now, we've just been looking on the Sun side --

5 **THE COURT:** There was the first one --

6 **MS. HURST:** Except for Ms. Catz. Exactly. And so now
7 it finally goes across to Oracle. This is 9221, and you see
8 that's from Ms. Hesse, who was Sun's lead lawyer on the deal at
9 the time from Wilson Sonsini, and it goes to Allen & Overy,
10 which is Sun's lawyer, and then it goes to, Your Honor, if you
11 can see, Clifford Chance and also Dan Wall, and Mr. Wall was
12 from Latham & Watkins and the Clifford Chance folks and the
13 Latham & Watkins, they represented Oracle in the deal. So
14 finally the answers go across.

15 Ms. Hesse says, "Here is a partial on the Java questions.
16 The answers in this document are done from our standpoint
17 unless otherwise noted."

18 And, Your Honor, at this point it's become -- it's still
19 No. 69, and if you look at the answer, which is on page 8 of
20 the exhibit, Sun's view, "Sun believes that the Dalvik Virtual
21 machine plus class libraries, which together constitute the
22 Android Runtime environment, are an unauthorized derivative
23 work of Java SE."

24 And, Your Honor, when we look at the trial exhibit that
25 was offered yesterday, which was Exhibit 5295 -- I think I need

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1 to check that. Let me just check. They're telling me that's
2 right. That was the final submission to the European
3 Commission.

4 **THE COURT:** May I see that, please.

5 **MS. HURST:** Yes.

6 **THE COURT:** Didn't I rule that out as hearsay?

7 **MS. HURST:** Your Honor, what you said yesterday -- and
8 we can get the transcript. Does somebody have a copy of 5295
9 for me?

10 What you said yesterday, Your Honor, was if we could show
11 you the version that proved that that language came from Sun
12 and not from Oracle, that we would be allowed to offer that
13 version, the one where the language came from Sun.

14 Your Honor, what I propose, given the offer of proof, is
15 that we stick with the final version, but Ms. Catz, who is
16 prepared to offer testimony regarding her foundation as to this
17 entire chain, be permitted to testify that the answer came from
18 Sun.

19 Your Honor, it could be a lot more inflammatory. This
20 jury heard the objection. They heard the accusation that the
21 answer really came from Oracle and not from Sun. That's
22 clearly not true. And Sun's position was even stronger,
23 Your Honor. And, frankly, Mr. Schwartz came here and
24 testified, "Oh, we didn't think we had any claims." Four times
25 he said it, Your Honor.

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1 And this absolutely disabuses the jury of any notion that
2 at the time Sun didn't think it had a claim. Sun was adamant
3 that it had a claim. But, Your Honor, given all of that and
4 the privilege situation, what we propose to do, given the offer
5 of proof, is that the Court admit 5295 and let the witness
6 testify with foundation that the answer in that document came
7 from Sun.

8 **MS. ANDERSON:** Your Honor, may I respond?

9 **THE COURT:** Wait a minute. I still haven't seen the
10 document.

11 **MS. HURST:** This is it, Your Honor, 5295, and the
12 answer is the answer to question 70.

13 **THE COURT:** All right. The key question is Sun --
14 "Please explain the conflict between Sun and Google with regard
15 to Google Android. Sun believes that the Dalvik Virtual
16 machine plus class libraries, which together constitute the
17 Android Runtime environment, are an unauthorized derivative
18 work of Java SE." Okay.

19 So what do you say -- this is by Oracle Corporation. What
20 do you say to this now?

21 **MS. ANDERSON:** Your Honor, this proposal and what just
22 happened stands just about every possible rule on its head in
23 this Court. These documents that Oracle is trying to shoehorn
24 in -- the arguments they are trying to shoehorn in, the waiving
25 of a privilege while a witness is actually on the stand

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1 testifying is so outrageous.

2 Oracle, on behalf of Sun, and now they're standing in its
3 shoes, hid this material and all the subject matter that
4 they're now waiving -- hid from discovery for years and years
5 and years. It has never been a secret that Google has been
6 saying that Oracle, upon acquiring Sun, decided to change the
7 rules that Sun publicly announced to the world would govern its
8 APIs.

9 That has always been the argument. We made it at trial
10 the first time. We're making it again here. If Oracle wanted
11 to rely on privileged communications -- and let's make no
12 mistake. These are on their log, as well as hundreds of others
13 in this subject area. If they wanted to rely on these, they
14 needed to waive that privilege when discovery was underway so
15 we could test what is in this material.

16 I don't think it's an accident that these communications
17 are happening months after Oracle has announced its intention
18 to acquire this company and outside counsel are seeking to
19 favor whatever Oracle's new position is going to be on this IP.

20 That said, this stuff doesn't justify getting in a hearsay
21 communication, and that communication that we saw in 5295 is
22 unambiguously hearsay.

23 Ms. Catz can testify to what she knows about what
24 happened, just like any other witness. But trying at the last
25 minute -- and literally last night and this morning these

1 documents were produced -- to waive a privilege in the middle
2 of trial on a subject matter as broad as whether or not
3 Android's activities were legal under the law according to Sun,
4 it's outrageous that this is happening right now.

5 Oracle should not be benefited or rewarded for this kind
6 of gamesmanship during trial. And there are a host other
7 problems with these documents, including hearsay, and a number
8 of other things. But first and foremost, Your Honor, if any
9 rule matters here, it's the parties haven't been allowed to do
10 this kind of thing. This is outrageous.

11 **MS. HURST:** Your Honor, may I respond?

12 **THE COURT:** Yes.

13 **MS. HURST:** Your Honor, what is outrageous is that we
14 had a motion that Mr. Schwartz could not come here and testify
15 that Sun didn't think it had any claims. And a stipulation was
16 entered into between the parties agreeing the witness would not
17 give that testimony.

18 I personally transmitted the Court's order on that
19 stipulation to Mr. Schwartz's lawyer, Laurence Pulgram. He
20 absolutely had notice of that order, and he got on the stand
21 and he testified three or four times, "We didn't think we could
22 do anything." And that is absolutely false.

23 And, you know what? Ms. Anderson just repeated the
24 accusation that this was somehow to favor Oracle, and if I need
25 to, I will go and get the Court a February 2008 document which

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1 shows that Koreen Krall, who was then the top litigator within
2 Sun's legal department, believed this was a copyright
3 infringement. And that's a document that's been produced in
4 the litigation, Your Honor.

5 This should be a search for the truth. And the truth --

6 **THE COURT:** Well, if that's true, then why don't we
7 open up the thing on the Lindholm privilege? You have
8 succeeded in preventing Google from explaining away the
9 Lindholm email. To hear their offer of proof, there is a
10 perfectly good excuse for what he really meant, but I have
11 prohibited them from doing that on account of the privilege
12 that they asserted.

13 And you're getting a huge benefit out of that, even though
14 I suspect that's being misused by your side, but that's the way
15 it is in litigation. They asserted the privilege. So too bad
16 for Google. But maybe in this case, too bad for you because
17 you asserted the privilege on these documents.

18 **MS. HURST:** All right. So, Your Honor, my offer of
19 proof is simply for the purpose so that the witness can testify
20 to her foundation for the document --

21 **THE COURT:** I don't think -- you know, you're doing a
22 tricky thing here. When I said yesterday it would come in if
23 it came from Sun, what I meant was through documents that have
24 been properly designated to be used in the trial or otherwise
25 admissible evidence. I didn't mean that you could go do some

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1 secret privileged offer of proof the jury would never see and
2 that's never been produced to counsel, and you're springing it
3 on them at the last minute.

4 I'm sorry. I'm not going to accept. Your offer of
5 privilege is noted for the record. I'm rejecting it.

6 **MS. HURST:** Your Honor, may the witness please testify
7 that the answer came consistent with the truth as she
8 understands it and was involved in it at the time --

9 **THE COURT:** That's a privileged issue, isn't it?

10 **MS. HURST:** The answer came from Sun on Exhibit 5295.
11 May she explain her foundation -- it's not privileged with
12 respect to the final document. It's just a fact. It's not an
13 attorney-client privileged communication. It's a fact that
14 that answer came from Sun. That's all we're asking for,
15 Your Honor. We're not asking to admit the recidivist bank
16 robber or any of these other things. We just want the witness
17 to be able to testify in the admission of 5295 that one
18 question and answer, that it came from Sun to rebut the charge
19 that Mr. Schwartz and Google have laid here on the table that
20 somehow this was all a creation of Oracle after the fact.

21 **MS. ANDERSON:** Your Honor, nothing has changed about
22 5295 since yesterday. It is still an Oracle hearsay statement
23 which is why the Court properly noted that yesterday. This
24 witness shouldn't be allowed to read in Oracle hearsay
25 statements.

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1 **THE COURT:** I'm going to stand by the ruling yesterday
2 and not allow what you're suggesting. That is a hearsay
3 document. It's a self-serving -- it could be under oath.
4 People testify under oath all the time in self-serving ways.
5 It's still hearsay.

6 This document is a hearsay document offered by Oracle and
7 that's the ruling. So I'm going to stand by that.

8 **MS. HURST:** Your Honor, under the residual exception,
9 the witness who was responsible for the preparation of the
10 hearsay document is on the stand and can be cross-examined.
11 It's a sworn document, Your Honor. It was filed with the
12 governmental commission, and the witness -- this witness was
13 responsible for approving it.

14 Your Honor, it has all the indicia of reliability that is
15 required to even, if it were hearsay -- which, Your Honor, we
16 submit that it was not because it was filed with a governmental
17 agency.

18 But in any event, Your Honor, certainly this is the
19 witness who could be cross-examined about the out-of-court
20 statement.

21 **THE COURT:** Only by revealing privilege and waiver of
22 privilege.

23 **MS. HURST:** Just the fact of the communication,
24 Your Honor, not the contents. Just the fact that the answer
25 came from Sun.

1 **THE COURT:** I mean, you showed me some documents, the
2 bank robber thing. The history of how that came about, any
3 legitimate cross-examination would have to get in there, and to
4 be fair to Google, they would have had to have taken
5 depositions of those people and figure out who planted the seed
6 for the bank robber analogy and did that really come from
7 Oracle --

8 **MS. HURST:** Your Honor, we tried to put the document
9 in front of Mr. Schwartz who was the CEO of Sun at the time and
10 remarkably testified that he had no idea what was in the
11 company's European Commission filing. That was ridiculous,
12 Your Honor.

13 **MS. ANDERSON:** Your Honor --

14 **THE COURT:** Wait, wait.

15 **MS. ANDERSON:** I apologize.

16 **MS. HURST:** He should have been able to say what his
17 own company's, you know, positions were at the time. Mr. Bicks
18 laid the document before the witness. He disclaimed all
19 knowledge of it. Your Honor, this is really about
20 Mr. Schwartz.

21 **MS. ANDERSON:** Your Honor --

22 **MS. HURST:** He came in here and he testified
23 repeatedly that Sun didn't think they had any claim and this --
24 you know, that the charge has been laid by Mr. Van Nest in his
25 summation yesterday that, you know, it was all open and Sun

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1 didn't think it was any problem and it's just greedy Oracle,
2 and we're going to hear more of that today, and it's just not
3 true, Your Honor. The jury should not be left with this false
4 impression.

5 **MS. ANDERSON:** Your Honor --

6 **THE COURT:** Listen, I wish we could go that way on a
7 lot of things in this case, but false impressions have been
8 left by you, for example, with the jury about the time period
9 of -- where the order of the Court -- the judgment of the Court
10 was that everything that Google was doing was okay.

11 Look, I can't solve every problem like that. I'm going by
12 the Rules of Evidence in this case, and, believe me, you have
13 gotten -- you have come out way ahead on issues of preclusion
14 in this case. The Lindholm email is the prime example where
15 the full truth about that email will probably never come out
16 and you will be the beneficiary of the way that thing was
17 written. So I can't solve all of those problems.

18 This is a hearsay document. It, in my mind, doesn't come
19 close to satisfying the residual exception, so I'm not going to
20 allow that. All this stuff should have been produced long ago
21 if you were going to use it, waive the privilege, let them take
22 depositions. It's just not fair to spring it on them at the
23 last minute.

24 Now, I want to say, though -- I want to say, though --
25 I'll just give you a hypothetical. Let's say that it was not a

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1 privileged communication. Let's say that Ms. Catz had -- was
2 sitting down for coffee at Starbucks back at the time in
3 question with somebody at -- say Schwartz even. Somebody at
4 Sun. And they were talking over the business. And the guy
5 says, "Hey, you know, that Google and that Android thing,
6 that's a gross -- they're bank robbers." If it wasn't
7 attorney-client, she could testify to that all day long.
8 That's not a problem. I would allow that in.

9 But what you've shown me is -- has all been cloaked in
10 privilege, and they've never had a chance to get at it, and
11 it's just not fair.

12 So, anyway, there is still some possibility that Ms. Catz
13 or some other witness could make the same point through a
14 non -- repeating a non-privileged communication, and I would
15 allow that in, even though it would be -- ordinarily be
16 hearsay, it would come in for the limited purpose that I
17 allowed similar statements yesterday to come in, to rebut the
18 charge that this was all Oracle's idea. So maybe you'll get it
19 in in some other way.

20 All right. Your offer of proof has been made.

21 **MS. HURST:** Thank you, Your Honor.

22 **MS. ANDERSON:** Thank you, Your Honor.

23 **THE COURT:** Wait. Do I now need -- I still have this
24 Oracle objection to --

25 **MR. BICKS:** Right.

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1 **THE COURT:** -- 9116.

2 **MR. BICKS:** Yep.

3 **MR. RAGLAND:** That is actually Google's objection.

4 **THE COURT:** That's what I mean, Google's objection. I
5 need to see the deposition.

6 **MR. RAGLAND:** I have the full transcript of
7 Mr. Gupta's deposition.

8 **THE COURT:** Is it marked with the key pages? Do you
9 want me to read the whole thing?

10 **MR. RAGLAND:** I thought Your Honor was asking for the
11 whole thing.

12 **THE COURT:** I am asking for the it, but mark the page
13 where the stonewalling takes place.

14 **MR. RAGLAND:** I'll get a Post-it and I can do just
15 that.

16 **MR. BICKS:** I gave it to you, Your Honor.

17 **THE COURT:** I want the whole thing plus this page.

18 **MR. RAGLAND:** Right. I'll do that.

19 **MR. BICKS:** Your Honor, can I just -- just to
20 refresh --

21 **THE COURT:** You need to refresh -- I don't remember
22 any of this.

23 **MR. BICKS:** That's totally understandable. This was
24 an issue that we dealt with with Mr. Schwartz. Remember, we
25 discussed this testimony. You told me to go back and tell the

1 lawyer who was involved, you know, to -- how they should handle
2 this in the future, and we -- I actually cross-examined -- you
3 asked me to examine one of the Kekker lawyers, Mr. Purcell
4 here, about what -- as you can see from the back and forth an
5 objection was made and the lawyers kind of left the issue open
6 and apparently nobody came back and dealt with it. There was
7 no privilege document logged or no clawback or anything like
8 that, and the conclusion you reached after we went through this
9 was that I could raise it with Mr. Schwartz. And then when
10 Mr. Schwartz got on the stand, I put a document in front of
11 him. It's e-mailed to every -- basically every executive in
12 the company, and then as with the EC document, you know, he had
13 no memory or knew absolutely nothing --

14 **THE COURT:** Show me the document that you're talking
15 about.

16 **MR. RAGLAND:** I can hand it up, Your Honor. It's the
17 last two pages. And actually --

18 **THE COURT:** Give this back to counsel.

19 **MR. RAGLAND:** I need to respond to that, if I may,
20 Your Honor.

21 **THE COURT:** Wait a minute. Show me the relevant part.

22 **MR. RAGLAND:** It's the next to the last page. And I'm
23 afraid I don't have a copy of it in front of me, but I believe
24 it's the next to the last page, and there is a public statement
25 and a private statement. It's the private statement,

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1 Your Honor, from Sun legal that was never communicated to the
2 outside world --

3 **THE COURT:** Wait a minute. This document was produced
4 in discovery; right?

5 **MR. RAGLAND:** Yes.

6 **THE COURT:** But then when Mr. Purcell tried to examine
7 on it, the witness was instructed not to answer, and then no
8 one ever made a follow-up motion. Is that the --

9 **MR. RAGLAND:** Your Honor, what happened actually is
10 Mr. Purcell testified -- is that counsel for Oracle said it's
11 privileged. You can't ask questions on it. Mr. Purcell and
12 Google took that in good faith and we treated it as privileged.
13 And then it showed up on the exhibit list for trial, and we
14 filed a motion previously about it, and we weren't allowed --
15 we, of course, didn't go dig it out of our files to ask
16 questions of other witnesses because that would be improper.

17 **THE COURT:** All right. So why isn't that -- if you
18 did instruct him not to answer, isn't that the end of it?

19 **MR. BICKS:** It's not the end of it, Your Honor,
20 because if you look at the transcript of the deposition, the
21 lawyers had a discussion off the record. Mr. Purcell comes
22 back on right after and says, "I'm not going to ask you about
23 this. We'll take this up later." And things stopped at that
24 point.

25 And I think what happened clearly is you had a lawyer who

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1 saw something sprung at a deposition, was trying to be careful,
2 and if you look at this statement, it's not a privileged
3 statement. That's the bottom line. And it's going to be
4 consistent, as Your Honor will see during the examination of
5 the witness where this will come up -- there will be multiple
6 references in documents where Sun is making it clear that there
7 are problems with what Google is doing. This just happens to
8 be a document, a briefing document --

9 **THE COURT:** Don't you have some that aren't
10 encumbered -- it is true that your own lawyer told him not to
11 answer the question, said it should be redacted, should not
12 have been produced, and then Mr. Purcell, as a good citizen,
13 says, "Okay, we'll put that to one side." And now you're
14 blaming him for not having made a motion when you're the one
15 that started the problem.

16 **MR. BICKS:** I'm not -- I'm saying, Your Honor, that as
17 we -- we've all been in that situation where somebody saw
18 something and was trying to be careful and it got left open at
19 the deposition. Nobody then wrote and said "Give me back all
20 these documents, we're putting them on a privilege log." None
21 of that ever happened. And my fundamental point is, Judge, if
22 you look at the statement, it's not a privileged statement.

23 **THE COURT:** But then why did your lawyers say it
24 should have been redacted?

25 **MR. BICKS:** I think it's somebody being careful,

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1 overly careful probably at a deposition.

2 **THE COURT:** But who should bear that burden? Is it
3 the party who was there? Mr. Purcell was perfectly prepared to
4 go ahead and ask his questions, and it looks like
5 Ms. Rutherford said, "No, you can't do that. It shouldn't have
6 been produced." Who should bear the burden of this problem
7 now?

8 **MR. BICKS:** Well, as I say, Your Honor, there was
9 never any kind of a motion -- typically the examiner will start
10 asking questions. You know, go into it, have a privilege
11 invoked, and if they want to get into the document, then
12 they'll make some kind of a motion.

13 Nothing like that was done. As I said, there was no
14 clawback or anything to that effect. And, you know, I don't
15 believe this is a privileged statement.

16 **THE COURT:** Well --

17 **MR. BICKS:** And, Your Honor --

18 **THE COURT:** -- probably it wasn't. That makes it all
19 the worse. Yes. Go ahead.

20 **MR. RAGLAND:** Well, first, the idea that there is no
21 clawback at the deposition, you heard Mr. Purcell testify under
22 oath here that he was told it was privileged, not to ask
23 questions about it. He said okay.

24 **THE COURT:** Let's just -- to be precise,
25 Ms. Rutherford said, "It looks like it has something in it that

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1 should be redacted actually. It says, 'Private statement not
2 to be used publicly by Sun legal'." The witness says, "Yes."
3 Ms. Rutherford, "I think that probably should have been
4 redacted in whatever version of this was produced."
5 Mr. Purcell, "Okay. Do you want to take a minute and decide
6 how to proceed? Let's go off the record." They go off the
7 record. And then they go back on the record, and Mr. Purcell
8 says, "Mr. Gupta, we're going to put Google 185 aside for a
9 second. We may not get back to it, but we'll be deciding that
10 in due course." So then they go on to Exhibit 186.

11 **MR. BICKS:** Right.

12 **MR. RAGLAND:** Right. And, Your Honor, you remember
13 you called Mr. Purcell --

14 **THE COURT:** Yeah. I remember now.

15 **MR. BICKS:** Right.

16 **MR. RAGLAND:** So the issue, Your Honor, is that he
17 testified that Ms. Rutherford said it's privileged and don't
18 ask questions, and he took that in good faith and did so.

19 I have to say also the idea that this is not a privileged
20 document, it says Sun legal not to be said publically. That's
21 private Sun legal. It's absurd that that's not a privileged
22 document.

23 It's also hearsay. It's bald hearsay and it's 403 because
24 it was never communicated to the outside world. It was
25 internal Sun and so it absolutely cannot go to Google's

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1 understanding or state of mind. So it's 403 on that alone.
2 It's hearsay and it's privileged and we were forbidden from
3 asking questions --

4 **THE COURT:** Well, if it weren't the privileged issue
5 and if it were properly sponsored, it would come in to show
6 that the idea of suing Google had already surfaced within Sun
7 because -- to contradict what -- I think for purposes of that
8 limited purpose, it would be admissible, but it was with -- the
9 questioning on this -- look, life is too short.

10 You told him not to ask questions. You can't get out of
11 that. You're stuck with the instruction not to answer and you
12 blocked Mr. Purcell from asking questions. And it's true, he
13 didn't follow up, but you shouldn't put the burden on him. The
14 problem came up because your side decided this was privileged
15 and would not allow questions about it, so we're just not going
16 to use it. I'm sorry. You can get at it some other way, but
17 not through this document.

18 So 9116 is -- it's the same as the Lindholm email. Well,
19 no. Actually, that gets to be used, but this one -- this
20 one -- this -- no. This particular part that -- the sentence
21 in question that should have been redacted according to -- that
22 cannot be used.

23 **MR. RAGLAND:** That's all we're asking for, Your Honor.
24
25 There are a few other issues with exhibits related to Mr. Civjan. Given the hour, we can take that up at a break.

CATZ - DIRECT RESUMED / HURST

1 **THE COURT:** We need to move on with the jury now. Can
2 we bring back the witness and the jury.

3 **MS. HURST:** Your Honor, I think we left with you, the
4 Court, Exhibit 5295.

5 **THE COURT:** While the jury is coming -- good morning,
6 Ms. Catz. While the jury is coming back, did you all get the
7 stipulation on the 62 methods yet?

8 **MS. HURST:** We did.

9 **MR. VAN NEST:** Yes, Your Honor.

10 **THE COURT:** Why don't you hand that up to me.

11 (Proceedings were heard in the presence of the jury:)

12 **MS. HURST:** Your Honor, this is the stipulation. We
13 would suggest it be read at the time of Mr. Reinhold's
14 testimony because he will be testifying about it.

15 **THE COURT:** Remind me at that time.

16 Welcome back, everyone. Be seated. Good morning to our
17 jury as well.

18 Good morning to Ms. Catz. Welcome back. I remind you,
19 you are still under oath.

20 Are you all set in the jury box with your notepads and
21 pens poised? Excellent. Okay. You may continue.

22 **MS. HURST:** Thank you, Your Honor.

23 SAFRA CATZ, PLAINTIFF WITNESS, PREVIOUSLY SWORN

24 DIRECT EXAMINATION (resumed)

25

1 **BY MS. HURST:**

2 **Q.** Ms. Catz, we looked yesterday at the email that
3 Mr. Schwartz sent that mentioned battles with Google Android.
4 Can you just remind the jury what Mr. Schwartz told you about
5 that?

6 **MS. ANDERSON:** Objection. Hearsay again, Your Honor.

7 **THE COURT:** Was this already testified to?

8 **MS. HURST:** Yes. It was offered for the limited
9 purpose that the Court gave for the instruction yesterday to
10 respond to Mr. Schwartz.

11 **THE COURT:** Is the answer going to be the same?

12 **MS. HURST:** Yes.

13 **THE COURT:** All right. Go ahead and repeat the
14 answer.

15 Objection overruled. It will be received for this limited
16 purpose.

17 **THE WITNESS:** Mr. Schwartz told me it was an
18 unauthorized unlicensed fork of Java SE.

19 **BY MS. HURST:**

20 **Q.** Ms. Catz, since acquiring Sun, what has Oracle done with
21 respect to the Java platform?

22 **A.** We've invested a lot in the Java platform. We've hired
23 engineers. We've had hundreds of engineers working on it to
24 continue to enhance it. We've actually had two new versions,
25 Java 7 and Java 8. Both versions have come out since we took

CATZ - DIRECT RESUMED / HURST

1 over.

2 We have -- we have really expanded the entire educational
3 network of Java. We teach Java to high school teachers. We
4 share Java with universities, not only in the United States,
5 but around the world, so we work very extensively through the
6 Oracle Academy teaching Java.

7 We market Java. We use Java and we support the big show
8 JavaOne which is now even larger than it's ever been, which is
9 a big show for developers, for Java developers, to meet and
10 work, and of course we run the JCP, the Java Community Process.

11 **Q.** And can you approximate for the jury how much Oracle has
12 spent in all of those efforts?

13 **A.** Hundreds of millions of dollars.

14 **Q.** Ms. Catz, how would you characterize the significance, if
15 any, of intellectual property protection to Oracle?

16 **MS. ANDERSON:** Objection, Your Honor, to the extent it
17 calls for a legal opinion.

18 **MS. HURST:** It's for the witness' understanding and
19 her business, Your Honor.

20 **THE COURT:** Well, maybe it's a problem, but it's a
21 vague question. I'll let her answer, and we'll see how
22 problematic the answer is.

23 Stay away from legal things, but otherwise, you may
24 answer, Ms. Catz.

25 **THE WITNESS:** All right. Thank you.

CATZ - DIRECT RESUMED / HURST

1 So our whole business is based on the ideas and work that
2 come out of our programmers' and employees' heads and that they
3 type into computer code. And we spend five and a half billion
4 dollars a year on research and development, which is those
5 brilliant ideas coming out of our employees' minds, that they
6 write down as computer code.

7 And what happens is though it's very, very hard and
8 expensive to build it, it's actually very easy to just make a
9 copy. It's very, very simple to make all sorts of unauthorized
10 copies. And intellectual property is really an -- and
11 intellectual property rights is what protects those brilliant
12 ideas as expressed in computer code. If it wasn't for that, we
13 wouldn't have any way of stopping people from just taking
14 stuff.

15 **BY MS. HURST:**

16 **Q.** And to your knowledge as a business person, is Oracle
17 alone in feeling this way about the importance of copyright and
18 software?

19 **MS. ANDERSON:** Objection --

20 **THE WITNESS:** No.

21 **MS. ANDERSON:** Foundation, speculation.

22 **THE COURT:** Look, I'm going to allow the question.

23 Here's what's going on, ladies and gentlemen of the jury.
24 Both sides have made their speeches about -- well, the other
25 side, Google, made -- gave some of their witnesses the exalted

CATZ - DIRECT RESUMED / HURST

1 open source and all of that and the values behind open source
2 and so you got to hear that, and now we're going to hear the
3 other side which is the value of protecting intellectual
4 property.

5 These are cosmic issues that are in play, and I'm not
6 trying to diminish their importance, but both sides are going
7 to have their say, so let's -- I'm going to allow Ms. Catz to
8 answer that question.

9 So please answer the question.

10 **THE WITNESS:** Most of the software industry, including
11 the business software association, which works very, very
12 hard -- it's our trade group that is made up of nearly all of
13 our competitors, and they all agree that it's very important to
14 have the intellectual property, the brilliance that comes out,
15 protected so that companies like ours and others can license
16 that software to customers, receive money for it so they can
17 invest back into it to build new software. The entire software
18 industry is based on this.

19 **BY MS. HURST:**

20 **Q.** All right. You mentioned a license, Ms. Catz. What's a
21 license?

22 **A.** A license is actually a permission to use or copy the
23 software. It's written in a written document that actually
24 lays out in quite a lot of detail exactly what the copier is --
25 what their rights are, what they're allowed to do. And that's

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1 actually what we do with our product. We license it. It's not
2 like a car where you just pick the car up and you hand it to
3 someone. They give you money.

4 Because our software is all about taking a copy of what
5 we've created, a license is -- really explains in writing
6 exactly what the user is allowed to do.

7 Q. All right. Ms. Catz, let's turn to a different subject.

8 In the course of your business at Oracle, have you learned to
9 what extent, if any, Android has had an effect on Sun and
10 Oracle?

11 A. Well, Android's had a very negative effect on Sun Oracle
12 in a number of ways.

13 Q. Would you describe those, please.

14 A. Sure. First, it's -- it's basically forked the Java whole
15 principle, the whole Java community has been forked, meaning
16 split into two because the whole idea of Java, as I mentioned
17 yesterday, is write once, run on any platform. That's really
18 the -- the bottom line.

19 And that meant that for developers, they could write it
20 once, brilliant idea, write it once, and it would run on all
21 sorts of different systems, which made it much more functional,
22 much -- not functional. Much more useful to those developers
23 because they could -- they could write it once and it would run
24 anywhere.

25 Android -- once you write it in Android, you can't run it

CATZ - DIRECT RESUMED / HURST

1 on anything but Android. So -- and if you write it in Java,
2 you can't write it in Android. Now, that's one side of it.

3 Secondly, many of those customers that we used to license
4 to take a copy, to take a licensed copy like Samsung or ZTE
5 or Motorola, just different licensees, BlackBerry, etc., they
6 don't need a license -- they don't take a license from us
7 anymore because they use Android, which is free, and they end
8 up using Android instead of actually paying us for a copy of --
9 of our software.

10 Q. All right. Ms. Catz, let me have you look at Exhibit 5961
11 that's before you there. And do you recognize Exhibit 5961?

12 A. Yes. This is -- this is one of the embedded business
13 unit's budget -- budget presentation that was given to us.

14 Q. And how are those budget presentations used within Oracle?

15 A. They're used as our way of planning for next year.
They're also used to educate us on what is going on in the
16 business.

18 Q. And are those budgets approved by the board of Oracle?

19 A. Yes. They actually go directly to -- after they're
20 approved by the Executive Management Team, they're actually
21 presented directly to the Board of Directors.

22 MS. HURST: Your Honor, I offer Exhibit 5961.

23 MS. ANDERSON: Objection. Hearsay, Your Honor.

24 THE COURT: May I see the document? The objection is
25 sustained so far.

CATZ - DIRECT RESUMED / HURST

1 BY MS. HURST:

2 Q. Ms. Catz, is the budget review a regularly-conducted
3 activity at Oracle?

4 A. Yes, it is.

5 Q. And do you do it every year?

6 A. Yes, we do.

7 Q. Is Exhibit 5961 part of your budget review for the fiscal
8 year 2011?

9 A. Yes.

10 Q. Was that presented to the management group of Oracle in
11 preparation for adoption by the Board of Directors of the
12 annual budget for fiscal year 2011?

13 A. Yes, it was.

14 MS. ANDERSON: Objection. Leading and --

15 THE COURT: Sustained. All of these are leading.

16 MS. HURST: Your Honor, it's foundational for the
17 admission of a document.

18 THE COURT: When it's important, you are not supposed
19 to lead.

20 There are too many slide shows in that document. If it
21 was just a financial statement, I would allow it, but there are
22 too many slide shows in that document to qualify it as a
23 business record.

24 MS. HURST: Your Honor, may we offer one page from the
25 document? I will point the Court to that page.

CATZ - DIRECT RESUMED / HURST

1 **THE COURT:** Yes. Please do that.

2 **BY MS. HURST:**

3 **Q.** Ms. Catz, would you turn to page 21 of the exhibit.

4 **THE COURT:** Objection still sustained. That's a
5 speech. It's not a business record. That's a speech. So I'm
6 sorry. You'll have to --

7 **BY MS. HURST:**

8 **Q.** Ms. Catz, in the budget review process for fiscal year
9 2011 -- first of all, was there anything significant about that
10 particular year?

11 **A.** Yes. It was going to be the first full year that we
12 actually owned Sun. We were -- we were -- we'd only owned them
13 a few months previously. This would be the first full year
14 going forward.

15 **Q.** All right. And were presentations made to you related to
16 the Java business in that process?

17 **A.** Yes. It was made to me directly.

18 **Q.** All right. And what did you learn about the status, if
19 anything -- about the status of the Java business as part of
20 the budget review in that first year?

21 **A.** What we learned is -- and what I learned was that the Java
22 business was being very heavily and negatively impacted by
23 Android.

24 **Q.** And can you explain that, please.

25 **A.** Yes. The -- the licensing business that this had always

CATZ - DIRECT RESUMED / HURST

1 been going on was disappearing because a number of the -- what
2 were called OEMs or handset manufacturers were in fact
3 adopting -- had adopted Android and were not licensing Java
4 anymore.

5 **Q.** And how, if at all, did that affect the profitability of
6 the Java business?

7 **A.** It had a very negative impact. Companies like Samsung
8 that would license a \$40 million contract were down to -- would
9 be licensing a million dollars.

10 **Q.** How did that affect profitability?

11 **A.** Well, profitability -- when revenues are here and expenses
12 are over here, this period -- this piece in between is your
13 profitability. But when your revenues go down but your
14 expenses are still high, still the same, your profitability
15 goes away.

16 **Q.** All right. Did you ever have occasion to become aware of
17 a situation with respect to licensing in Amazon?

18 **A.** Yes.

19 **Q.** What was the situation with respect to Amazon licensing?

20 **A.** So Amazon for the Kindle -- it's a reader. For the Kindle
21 Reader had used Java to create that Kindle Reader for many
22 years. And then they had another product called the Kindle
23 Fire and that one they used Android and so they didn't license
24 Java at that time.

25 **Q.** And how did this situation come to your attention?

CATZ - DIRECT RESUMED / HURST

1 **A.** Because the way we look at different discounts and handle
2 them with different customers comes through an approval process
3 that came -- comes to me, and so I was -- I was made aware
4 through that process that we -- that -- that -- that basically
5 Amazon was going to do the Kindle Fire with Android and that
6 they were now considering a new product called the Paperwhite.
7 It's called the Amazon Paperwhite, and they were considering
8 whether to use Java for that or Android.

9 **Q.** And what happened?

10 **A.** Well, in order to compete with them, we ended up giving
11 them like a 97 and a half percent discount for the Paperwhite.
12 So instead of what we would have historically charged them,
13 because our competition was free, they -- they -- we had to
14 offer them a 97 plus basically couple cents on the dollar price
15 from the list price.

16 **Q.** And overall, Ms. Catz, if you know, how have Oracle's Java
17 licensing revenues in phones, mobile phones and similar
18 devices, fared since Android?

19 **A.** They've done very, very poorly.

20 **Q.** Now, Ms. Catz, you do have the open source version of
21 Java. Is that the reason for the decline in revenues?

22 **MS. ANDERSON:** Objection. Calls for expert opinion.

23 This witness was not disclosed on that, Your Honor.

24 **THE COURT:** Well, those are two different points. Was
25 she disclosed on this subject?

CATZ - DIRECT RESUMED / HURST

1 **MS. HURST:** No, Your Honor, but this is part of her
2 ordinary business and understanding at the time, which was
3 the -- I believe the rule we heard last week.

4 **THE COURT:** Does she actually know the answer from her
5 personal knowledge, or is this something that's been fed to her
6 by somebody else?

7 **MS. HURST:** Personal knowledge, Your Honor.

8 **THE COURT:** All right. I'm going to let her answer
9 then.

10 **THE WITNESS:** The phones that -- that are in use by
11 these other handset users use Android. They don't use OpenJDK.
12 They are Android phones.

13 **BY MS. HURST:**

14 **Q.** Now, Ms. Catz, we looked on the timeline yesterday between
15 the decision to acquire Sun and the closing of the deal. Did,
16 at some point in that process, Oracle consider whether it might
17 release a phone?

18 **A.** Well, we considered a number of things, but we decided
19 that releasing a phone didn't make sense for us.

20 **Q.** Why not?

21 **A.** Well, as far as an actual phone, we were not in that
22 business and that wouldn't have made sense for us.

23 **Q.** And what about more advanced phone software?

24 **A.** Well, as far as a phone platform, we looked at that very
25 hard and realized that Android was just too far out ahead in

CATZ - DIRECT RESUMED / HURST

1 the market and that it would be very difficult to compete with
2 free, especially since they were using our software in it.

3 **Q.** All right. So what was your decision?

4 **A.** We decided not to do it.

5 **Q.** Is it true, Ms. Catz, that there are some Oracle products
6 that work on Android?

7 **A.** Yes.

8 **Q.** And --

9 **A.** It is true, because Android has so taken over the handset
10 market, if our applications didn't run on Android, our
11 customers simply wouldn't be able to use some of our products,
12 so we -- we've ended up having to make them function on -- on a
13 number of devices, including Android devices.

14 **Q.** Ms. Catz, one of the considerations that the judge has
15 instructed the jury is relevant to fair use is what would
16 happen if everyone could do what Google is doing. What are
17 your thoughts with respect to Oracle's business, if that were
18 the case?

19 **MS. ANDERSON:** Objection, Your Honor, to the extent
20 it's calling for a legal evaluation.

21 **MS. HURST:** Just as a business person, Ms. Catz.

22 **THE WITNESS:** Well --

23 **THE COURT:** Well, if the objection is legal
24 evaluation, that objection is overruled.

25 Go ahead. Answer the question.

CATZ - DIRECT RESUMED / HURST

1 **THE WITNESS:** If everyone took a copy of our software
2 without actually licensing it, we wouldn't have a business
3 anymore. We simply wouldn't be able to afford to invest and --
4 into the software industry if everyone else did what Google
5 did, which is just take a copy of the software without a
6 license. We wouldn't have a business.

7 **BY MS. HURST:**

8 **Q.** Ms. Catz, did there ever come a time completely outside
9 the context of this lawsuit when you had an interaction with a
10 Google executive about Google taking a license?

11 **A.** I'm sorry. Could you ask me that again?

12 **Q.** Sure. Was there ever a time when, completely outside the
13 context of this lawsuit, in a social setting you had an
14 interaction with a Google executive about Oracle's desire for
15 Google to take a license?

16 **A.** Yes. Actually I was at a Bat Mitzvah and -- which is like
17 a Bar Mitzvah, but for girls -- and Kent Walker, their general
18 counsel, came up to me and said, "You know, Safra, Google's a
19 really special company, and the old rules don't apply to us."
20 And I immediately said, "Thou shalt not steal." It's an oldie
21 but a goodie.

22 **Q.** When was this conversation?

23 **A.** This was in March of 2012.

24 **MS. HURST:** Pass the witness.

25 **THE COURT:** All right. Let's go to cross-examination.

MS. ANDERSON: Thank you, Your Honor. Just one minute. I'll set stuff up here.

CROSS - EXAMINATION

BY MS. ANDERSON:

Q. Good morning, Ms. Catz. My name is Christa Anderson. I'm counsel to Google.

A. Hello.

Q. I have a few questions for you.

You said you're the Co-Chief Executive Officer of Oracle; correct?

A. Yes

9. That's the parent of Oracle America; right?

A. Yes.

o. And Oracle America is the new name for Sun today; right?

A. It is.

Q. All right. And as Chief Executive Officer, you're called upon to speak on behalf of your company from time to time; right?

A. Yes.

Q. You're a top executive of a very large corporation; true?

A. Yes.

Q. And you make those statements to employees of the company; right?

A. Yes.

Q. And to the public in general; true?

CATZ - CROSS / ANDERSON

1 **A.** Sometimes.

2 **Q.** And you make representations to government about the state
3 of your company; true?

4 **A.** That's correct.

5 **Q.** And you know that people count on you as a Chief Executive
6 Officer to make truthful statements in those statements to the
7 government and the public; right?

8 **A.** Yes.

9 **Q.** And you agree that people in the world should be able to
10 rely on the statements that you've made as Chief Executive
11 Officer; right?

12 **A.** Yes.

13 **Q.** As a general matter, don't you think it's fair that people
14 in the world should be able to rely on the truthfulness of the
15 representations made by chief executive officers of companies;
16 right?

17 **A.** It would depend on what they are.

18 **Q.** You think it's important they should be able to rely on
19 the truth --

20 **THE COURT:** Well, I think --

21 **MS. ANDERSON:** -- true?

22 **THE COURT:** Why don't we move to whatever she said in
23 the past.

24 **MS. ANDERSON:** Happy to.

25 **Q.** I just want to make sure, there is nothing special about

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1 you as CEO in terms of the importance that people be able to
2 rely on the truth of what you say; right?

3 **A.** Yeah. It would depend on what I'm talking about.

4 **Q.** So you're aware that when CEOs like yourself tell the
5 world about what they are giving away for free, the world
6 should be able to rely on those statements; true?

7 **A.** It really depends on the context. Why don't you show me
8 what you want to --

9 **Q.** So you're not sure that's true?

10 **THE COURT:** Ms. Anderson, this is too argumentative.

11 **MS. ANDERSON:** I would be happy to move on.

12 **THE COURT:** It would be much better to move to
13 whatever the statement is and then we can argue over that one.

14 **BY MS. ANDERSON:**

15 **Q.** There have been a lot of statements in this case by chief
16 executive officers, including yourself; right?

17 **A.** This is the second day, so I don't know what's been going
18 on here.

19 **Q.** All right. Mr. Ellison, you said, was Chief Executive
20 Officer of Oracle before you; right?

21 **A.** Yes, he was.

22 **Q.** And he was the Chief Executive Officer of Oracle when
23 it -- when it agreed to acquire Sun; right?

24 **A.** Yes.

25 **Q.** And you also said that Jonathan Schwartz was the Chief

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1 Executive Officer of Sun when Oracle agreed to purchase Sun;
2 right?

3 **A.** Yes.

4 **Q.** All right. Now, you, as a representative of Oracle that
5 owns Oracle America, know that you keep business records of Sun
6 from the past; true?

7 **A.** Yes.

8 **Q.** Some of those records were the Certificate of Registration
9 of the copyrights at issue in this case; right?

10 **A.** That's right.

11 **Q.** And you also keep what are known as 10K reports from the
12 times of Sun; right?

13 **A.** Yes. Annual statements.

14 **Q.** And 10Ks are important statements made by a company like
15 Sun or like Oracle to the Securities and Exchange Commission
16 about the current state of the business of that company; right?

17 **A.** Yes.

18 **Q.** All right. And you reviewed these statements in
19 performing your due diligence in acquiring Sun; right?

20 **A.** I did review them.

21 **Q.** All right.

22 **A.** Some of them, not all of them. But some of them.

23 **Q.** Thank you.

24 Your Honor, may I approach the witness?

25 **THE COURT:** Yes. Why don't we remove that other stack

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1 of documents --

2 **MS. ANDERSON:** I'd be happy to.

3 **THE COURT:** -- so that the witness will have a clear
4 bench.

5 **BY MS. ANDERSON:**

6 **Q.** You've seen Exhibit 971 before, right, Ms. Catz?

7 **A.** Is it the one in this package? Should I open this
8 package?

9 **Q.** Oh, yes, please. Go ahead and open this up. Thank you
10 of.

11 Have you seen this document before, Exhibit 971, the form
12 10K for Sun Microsystems for the period ending June 30, 2008?

13 **A.** I probably looked at parts of it for sure.

14 **MS. ANDERSON:** Your Honor, we move in evidence Exhibit
15 971.

16 **MS. HURST:** It's an awfully large document,
17 Your Honor. I wonder if we could just have the pages that are
18 relevant to the witness' examination.

19 **MS. ANDERSON:** We would be happy to excerpt it,
20 Your Honor, but this is the entire form of 10K, and we will be
21 talking about just a few pages of it.

22 **THE COURT:** Do you have an objection to it as is,
23 Ms. Hurst?

24 **MS. HURST:** Your Honor, that's fine. No objection.

25 **THE COURT:** 971 received in evidence.

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1 (Trial Exhibit 971 received in evidence)

2 **BY MS. ANDERSON:**

3 Q. So this is one of the documents that Sun Microsystems
4 submitted to the Government and the public about the state of
5 its company for that fiscal year ending June 30, 2008; right?

6 A. Yes.

7 Q. All right. If you would, please, ma'am, please turn to
8 page 14 of this report. And there are numbers at the bottom
9 that tell you page 14 of 592 pages. Do you see that?

10 A. Yes, I do.

11 Q. Thank you. And let's take a look at the statements by Sun
12 that start about a third of the way down the page starting with
13 the words "we have licensed significant elements of our
14 intellectual property." Do you see that paragraph?

15 A. Yes.

16 Q. All right.

17 And, Mr. Dahm, if we could have that -- yes. Those two
18 paragraphs. Thank you. And blow that up just a little bit.
19 That would be great.

20 Let's take a look at the first sentence there: "In June
21 of 2008, Sun represented to the public and the government that
22 Sun has licensed significant elements of our intellectual
23 property, including our Solaris operating system and Java
24 technology as open source software and intend to license
25 additional intellectual property in the future under open

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1 source licenses which could reduce a competitive advantage we
2 derive from this intellectual property," end quote. Do you see
3 that?

4 **A.** Yes, I do.

5 **Q.** All right. And you knew that when Oracle acquired Sun;
6 right?

7 **A.** Yes.

8 **Q.** All right. And then drawing your attention down a little
9 father in this paragraph to the sentence that starts, "We have
10 also released our Java platform, do you see that? It's like
11 the second sentence, I believe.

12 **A.** Yes.

13 **Q.** Do you see that? So in 2008, Sun represented to the world
14 and the government that, "We have also released our Java
15 Platform Standard Edition, Java SE; Enterprise Edition, Java
16 EE; and Micro Edition Java Technologies under an open source
17 license. Although open source license models vary, generally
18 open source software licenses permit the liberal copying,
19 modification and distribution of a software program allowing a
20 diverse programming community to contribute to the software.
21 As a result of such release, there could be an impact on
22 revenue related to this intellectual property and we may no
23 longer be able to exercise control over some aspects of the
24 future development of this intellectual property." Do you see
25 that?

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1 **A.** Yes.

2 **Q.** And Oracle knew that when it acquired Sun; right?

3 **A.** Yes.

4 **Q.** And drawing your attention down a little farther in this
5 paragraph, the sentence that starts, "In addition, disclosing
6 the content," do you see that? Towards the end of this
7 paragraph. "In addition disclosing the content of our source
8 code." Do you see that? That would be the second-to-the-last
9 sentence?

10 **A.** I see it.

11 **Q.** Thank you. Sun stated, "In addition disclosing the
12 content of our source code could limit the intellectual
13 property protection we can obtain or maintain for that source
14 code or the products containing that source code and could
15 facilitate intellectual property infringement claims against
16 us." Do you see that will in knowledge?

17 **A.** Yes.

18 **Q.** So Oracle knew that when it acquired Sun; right?

19 **A.** Yes.

20 **Q.** Let's turn our attention to the testimony you gave
21 yesterday on a subject of Oracle's acquisition. You made some
22 comments suggesting that Oracle's acquisition of Sun saved
23 jobs. Do you generally recall that testimony?

24 **A.** Yes.

25 **Q.** But you know that after the acquisition, Oracle was

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1 criticized in the press for going back on its promises to
2 retain Sun employees; right?

3 **A.** I actually don't remember that.

4 **Q.** So did you read an article in June of 2010 entitled
5 "Oracle SEC Filing Gives Indication Of Much Larger sun Layoff
6 Plan"?

7 **A.** I don't remember that, but you can show it to me, if you
8 want.

9 **Q.** Were you --

10 **A.** Because we hired people.

11 **Q.** Okay. Were you familiar with the official Securities and
12 Exchange Commission filings of Oracle Corporation in 2010 about
13 the subject of Sun?

14 **A.** Yes.

15 **Q.** Okay. So you're familiar with one of those filings, the
16 8K filed in May of 2010 in which Sun informed the government --
17 excuse me -- in which Oracle informed the government about the
18 Sun restructuring plan that was in connection with the
19 integration of Sun into Oracle. Do you remember that
20 generally?

21 **A.** Yes.

22 **Q.** And in that document, Oracle was informing the government
23 that it was making amendments to the plan because it was going
24 to get more expensive in relation to layoffs. Do you remember
25 that?

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1 **A.** We were doing our reorganization within Oracle Sun.

2 **Q.** And specifically, Oracle informed the government that that
3 amendment further reduces the size of Oracle's combined
4 workforce. Do you remember that?

5 **A.** Yes. Oracle's combined workforce.

6 **Q.** And do you remember that Oracle estimated the cost related
7 to that amendment would be an additional \$675 million to \$825
8 million related to improving efficiencies in the operation;
9 right?

10 **A.** Yes.

11 **Q.** Including the layoffs; right?

12 **A.** Yes.

13 **Q.** Thank you.

14 Let's turn to the time period before the actual Sun
15 acquisition. It is correct that you were never employed by Sun
16 Microsystems prior to acquisition by Oracle; true?

17 **A.** That's correct.

18 **Q.** And you were never a representative of Sun during any of
19 the communications between Google and Sun; right?

20 **A.** Can you say that one more time?

21 **Q.** Sure. You did not participate in any negotiations between
22 Google and Sun prior to acquisition; right?

23 **A.** That's correct.

24 **Q.** You have no personal knowledge of anything that the Sun
25 representatives told Google prior to Oracle's acquisition of

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1 Sun; right?

2 **A.** Do you mean I wasn't there?

3 **Q.** Yes. That's correct.

4 **A.** Okay. I was not there.

5 **Q.** You were not there, so you don't know what happened;
6 right?

7 **A.** I was not there.

8 **Q.** Thank you.

9 But you are aware that after acquiring Sun and in August
10 of 2010, Oracle sued Google in this case; right?

11 **A.** We did sue Google, yes.

12 **Q.** And Oracle sued after it had evaluated and decided not to
13 pursue developing a Java phone; right?

14 **A.** That's correct.

15 **Q.** And Mr. Ellison at the time, the CEO, was the person who
16 evaluated it and decided to kill it as a project; right?

17 **A.** We evaluated it, a number of us together, and we did not
18 pursue it, that's right.

19 **Q.** Mr. Ellison said that he was the one that evaluated it and
20 decided to kill it; right?

21 **A.** As -- as -- you bet.

22 **Q.** And Oracle couldn't build a smartphone because of its own
23 lack of internal expertise and knowhow; true?

24 **A.** Could I just ask you to clarify just one question? Are
25 you talking about the physical phone or a phone platform?

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1 **Q.** I've been talking about building a Java phone.

2 **A.** A phone, a physical phone?

3 **Q.** Yes. Yes.

4 **A.** Okay.

5 **Q.** Right?

6 **A.** That's correct.

7 **Q.** And you stand by your testimony; right?

8 **A.** Yes. We -- we decided -- we decided that we should not
9 make a physical phone.

10 **Q.** I'd like you to please take a look at Exhibit 2044, which
11 should be in a folder before you.

12 **THE COURT:** Help the witness find the right --

13 **MS. ANDERSON:** Actually, Your Honor, may I approach?

14 I may have kept it here by accident. May I approach the
15 witness?

16 **THE COURT:** Yes.

17 **MS. ANDERSON:** Thank you.

18 Here you go. I would be happy to move this, if you like.

19 **THE COURT:** What was the exhibit number for that big
20 10K?

21 **MS. ANDERSON:** That's 971, Your Honor.

22 **THE COURT:** All right. Okay. That's in evidence.
23 All right.

24 **BY MS. ANDERSON:**

25 **Q.** Exhibit 2044 is an email you received from Thomas Kurian

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1 of Oracle in June of 2009; correct?

2 **A.** Yes.

3 **MS. ANDERSON:** Your Honor, we move in evidence Exhibit
4 2044.

5 **THE COURT:** Any objection?

6 **MS. HURST:** No objection, Your Honor.

7 **THE COURT:** Thank you. Received.

8 (Trial Exhibit 2044 received in evidence)

9 **BY MS. ANDERSON:**

10 **Q.** Who is Mr. Kurian?

11 **A.** Mr. Kurian runs our development -- software development
12 organization.

13 **Q.** And when he sent this email to you, he sent it to you in
14 June of 2009 and attached a presentation to it; correct?

15 **A.** Yes.

16 **Q.** If you would, please, turn to page 3 of this exhibit. The
17 title of this exhibit is "Project Java Phone, Strategy and
18 Product Definition"; correct?

19 **A.** Yes.

20 **Q.** All right. And if you could, turn to page 11 of
21 presentation. Do you see --

22 **MS. HURST:** Ms. Anderson, the presentation or the
23 exhibit?

24 **MS. ANDERSON:** I apologize. To be clear, it's the
25 slide presentation, page 11, but it's the exhibit, page 12.

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1 They're one off.

2 Q. It's the one entitled "Operating System Options and
3 Recommendation" and starts off with the first bullet, "Options
4 for Version 1.0."

5 THE COURT: What's the question?

6 BY MS. ANDERSON:

7 Q. Do you have that before you?

8 A. Yes.

9 Q. Okay. Thank you. Actually there is a page missing from
10 my slide.

11 Let's take a look, please -- I apologize. There is a
12 slide missing from my copy. We'll come back to that.

13 Do you see page 24 of Exhibit 2044? Turning down to
14 "Organizational Model, Options and Recommendation," first
15 bullet issues. Do you see that?

16 A. Yes.

17 Q. All right. These were the issues that were in the
18 presentation sent to you by Mr. Kurian; right?

19 A. Yes.

20 Q. All right. And one of the issues, the third bullet under
21 "Organizational Model" is that Oracle had, quote, "very limited
22 internal expertise to make smart decisions," end quote; right?

23 A. I see it, yes.

24 Q. Right. And that was limited internal expertise to make
25 smart decisions about a Java phone; right?

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1 **A.** I think so. Honestly, I don't know. I don't know for
2 sure.

3 **Q.** And then below that are some recommendations in the
4 presentation from Mr. Kurian in which he has -- the first
5 recommendation is "To hire a Superstar team of three to four
6 people who have built a phone"; right?

7 **A.** I see that, yes.

8 **Q.** Because Oracle didn't have those people who knew how to do
9 it; right?

10 **A.** That's right. We've never built a phone before.

11 **Q.** I'd like now, if you would -- I'm going to show you
12 Exhibit 7406.

13 Your Honor, may I approach?

14 **THE COURT:** Yes.

15 **MS. ANDERSON:** Thank you.

16 **Q.** Exhibit 7406 is an email exchange from Mr. Kurian to Larry
17 Ellison and yourself; right?

18 **A.** Yes.

19 **Q.** And it's dated March of 2010; true?

20 **A.** Yes.

21 **Q.** All right.

22 Your Honor, we move this exhibit in evidence.

23 **MS. HURST:** No objection.

24 **THE COURT:** Received in evidence.

25 (Trial Exhibit 7406 received in evidence)

CATZ - CROSS / ANDERSON

1 **BY MS. ANDERSON:**

2 **Q.** In this email exchange -- and again at the top it says
3 it's from Mr. Kurian dated March 22, 2010. Mr. Kurian tells
4 Mr. Ellison, quote, "Larry, I understand you will be meeting
5 with Eric Schmidt on Wednesday," end quote. Do you see that?

6 **A.** Yes, I do.

7 **Q.** So this is material that Mr. Kurian wanted to provide to
8 the CEO, Mr. Ellison, in relation to Mr. Ellison's planned
9 meeting with Eric Schmidt of Google; right?

10 **A.** Yes.

11 **Q.** And attached to this particular email is a presentation he
12 sent to Mr. Ellison starting on page 3 of this exhibit; right?

13 **A.** Yes.

14 **Q.** And so the presentation indicates it's a proposal about,
15 quote, "Java on Android devices," end quote; right?

16 **A.** Yes.

17 **Q.** But Oracle and Google did not ultimately agree to a deal
18 to work together in relation to Android; true?

19 **A.** That's correct.

20 **Q.** Instead, Oracle pivoted to a new strategy; right?

21 **MS. HURST:** Objection. Vague.

22 **BY MS. ANDERSON:**

23 **Q.** Did Oracle switch to a new strategy of deciding to
24 threaten Google?

25 **A.** We sued Google.

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1 **Q.** Right. You filed suit in August 2010; right?

2 **A.** Yes.

3 **Q.** Okay. And as part of that, Oracle went to Google to
4 demand that it pay money for licensing unspecified aspects of
5 Java; right?

6 **MS. HURST:** Your Honor, I think this gives in to the
7 subject matter that's been previously excluded.

8 **MS. ANDERSON:** No. Actually, Your Honor, we are going
9 to be talking about a different exhibit, Exhibit 1074,
10 Your Honor, if I may approach.

11 **THE COURT:** Show counsel to make sure it's a different
12 problem.

13 **MS. ANDERSON:** Your Honor, may I approach?

14 **THE COURT:** Yes.

15 **MS. HURST:** I believe this is hearsay, Your Honor.

16 **THE COURT:** Well --

17 **MS. HURST:** And not authored by Oracle.

18 **THE COURT:** All right.

19 **MS. ANDERSON:** Your Honor, it's authored by the
20 witness. It's not hearsay.

21 **MS. HURST:** The middle email, Your Honor, is hearsay.
22 From Mr. Eustace at Google.

23 **THE COURT:** Who is Alan?

24 **MS. ANDERSON:** Mr. Eustace is a representative of
25 Google responding to a demand from the witness, Ms. Catz, which

CATZ - CROSS / ANDERSON

1 starts at the bottom of this exhibit. It's an email exchange
2 between this witness and a representative of Google.

3 **THE COURT:** Well, what is this being offered for, if
4 not for the truth of the statement in this case?

5 **MS. ANDERSON:** Your Honor, it is, among other things,
6 being offered for the fact that Oracle had no information to
7 provide Google at the time in relation to their claim of IP
8 infringement and to the fact that this was a state of mind, and
9 Mr. Eustace represents to Oracle in this document that it will
10 not be paying for --

11 **THE COURT:** Okay. Wait a minute.

12 **MS. ANDERSON:** The only objection that is asserted on
13 the objection from Oracle was hearsay, and this is not a
14 hearsay exchange, given that it begins with statements from
15 Oracle's representative and then ends with it as well.

16 **MS. HURST:** Well, I also made the earlier objection,
17 Your Honor, about this getting into excluded areas.

18 **MS. ANDERSON:** And we have no --

19 **THE COURT:** We are going to take this up separately.
20 For now, I'm going to sustain the objection because it has a
21 lot of self-serving material in there. And I'll just leave it
22 at that for the moment. I don't see too much relevance.
23 There's a lot of self-serving material there. I'm going to
24 sustain the objection.

25

CATZ - CROSS / ANDERSON

1 **BY MS. ANDERSON:**

2 **Q.** Do you recall testifying yesterday, Ms. Catz, about an
3 Exhibit 2632? It should be, I hope, in the pile near you.

4 **A.** I don't remember which one that is.

5 **Q.** 2362. Let me help you find it. Application developers,
6 2362.

7 **A.** It's not here in this pile. These are just what you gave
8 me.

9 **Q.** Here you go. This is from your counsel's examination.

10 Your Honor, may I approach and hand this to the witness?

11 **THE COURT:** Yes, you may.

12 **MS. ANDERSON:** Thank you.

13 **BY MS. ANDERSON:**

14 **Q.** You were asked some questions about Exhibit 2362 from
15 April 20th, 2009. Do you generally remember that testimony?

16 **A.** Yes.

17 **Q.** About a communication between Jonathan Schwartz and
18 Mr. Ellison copied to Safra Catz. Do you remember that as
19 well?

20 **A.** Yes.

21 **Q.** And generally your testimony was about the idea of there
22 being battles related to Google and Android with Sun. Do you
23 remember generally your testimony?

24 **A.** I remember this document.

25 **Q.** Okay. But about a month and a half after this email

CATZ - CROSS / ANDERSON

1 exchange, Mr. Larry Ellison, CEO of Oracle, made public
2 comments in June of 2009 about Android at the JavaOne
3 conference; right?

4 **A.** Yes.

5 **Q.** All right. He said to the public and the world that it
6 was very exciting to see devices based on Java that are Android
7 devices; right?

8 **A.** I don't remember exactly what he said, but if you have it,
9 we can go over it.

10 **Q.** But that sounds right to you; right?

11 **A.** I don't remember exactly what he said.

12 **Q.** Let's take a look.

13 Your Honor, may I approach again?

14 **THE COURT:** Yes.

15 **BY MS. ANDERSON:**

16 **Q.** I'm showing you Exhibit 2041. This is another official
17 filing made relating to Mr. Ellison's comments at JavaOne
18 concerning, among other things, Java and Android; right?

19 **A.** Yes.

20 **MS. ANDERSON:** Your Honor, we move into evidence
21 Exhibit 2041.

22 **THE COURT:** Any objection?

23 **MS. HURST:** No objection, Your Honor.

24 **THE COURT:** Received.

25 (Trial Exhibit 2041 received in evidence)

CATZ - CROSS / ANDERSON

1 **MS. ANDERSON:** If we could, Mr. Dahm, have the page
2 that quotes Mr. Ellison's comments related to him being excited
3 to see devices based on Java that are Android devices.

4 **Q.** Do you have that before you? Does that refresh your
5 memory that, in fact, Mr. Ellison said just those words at
6 JavaOne about a month and a half after that email exchange,
7 Exhibit 2362?

8 **A.** Yes. I see what he said.

9 **Q.** All right. And he said that he expected to see a lot more
10 Java devices from Oracle's friends at Google; right? Can we
11 have -- do we have that up there? Get that highlighted for
12 you.

13 Do you see that there, Mr. Ellison's comments, "They're
14 going to be Netbooks based on Android and I think we can see
15 lots and lots of Java devices, some coming from our friends at
16 Google." Do you see that?

17 **A.** Yes.

18 **Q.** That's what the CEO of Oracle told the world and the
19 JavaOne developing community, told them about Mr. Ellison's
20 views about Android and Google; right?

21 **A.** Well, this is what Larry said at JavaOne before we owned
22 Sun and before we had all the information about Google's
23 behavior.

24 **Q.** Right. And, again, it was a month and a half after
25 Exhibit 2362; right?

A. Yes.

MS. ANDERSON: Your Honor, subject to Exhibit 1074 being resolved, we pass the witness, of course.

THE COURT: All right.

MS. HURST: Very briefly, Your Honor.

THE COURT: Okay.

REDIRECT EXAMINATION

BY MS. HURST:

9 Q. What was the purpose of an appearance at JavaOne in the
10 summer of 2009 by Mr. Ellison?

11 A. Well, it was to get the Java developers to realize how
12 important they were to us. It was the first time that we would
13 be able to speak to them after announcing the deal and to just
14 let them know that Java was very important to Oracle and just
15 let them know how happy we were to have an agreement with Sun.

16 Q. And had there been any concern in the community that led
17 to the conclusion that that kind of a statement would be
18 appropriate?

19 **A.** Well, I think folks -- there's always uncertainty when an
20 acquisition is announced, so you want to just let them know
21 that JavaOne would continue and is very, very important to us
22 going forward.

23 Q. All right. Ms. Catz, what role, if any, did Android have
24 in your decision at Oracle, after the acquisition, not to go
25 forward with a new smartphone platform?

CATZ - REDIRECT / HURST

1 **MS. ANDERSON:** Objection. Beyond the scope.

2 **MS. HURST:** It's related to the document --

3 **THE COURT:** Overruled. Please answer.

4 **THE WITNESS:** It was absolutely central to it because
5 Android was already out of the box and they had agreements with
6 all of our former customers and they were offering Android for
7 free.

8 **BY MS. HURST:**

9 **Q.** Let's just look over here. When were you making this --
10 approximately when were you making this decision on the
11 timeline?

12 **A.** To not --

13 **Q.** Yes.

14 **A.** -- continue on? After -- after, you know -- after Google
15 had already released Android, past 2007.

16 **Q.** After the acquisition closed?

17 **A.** Oh, yeah. Obviously much after the acquisition closed.

18 **Q.** And that was because you couldn't tell Sun what to do in
19 the meantime?

20 **MS. ANDERSON:** Objection. Leading.

21 **THE WITNESS:** Of course not. We could not make any
22 decisions for Sun until we owned them.

23 **MS. HURST:** No further questions.

24 **THE COURT:** All right. The objection is overruled.

25 Can I see that document again? I have an idea on 1074

CATZ - REDIRECT / HURST

1 before we excuse the jury. The one --

2 **MS. ANDERSON:** This one has marking on it.

3 **THE COURT:** Let me --

4 **MS. ANDERSON:** The witness has the official one.

5 **THE COURT:** Ms. Catz, if you could stretch your arms.

6 **MS. ANDERSON:** It goes to state of mind and bad faith
7 position as well.

8 **THE COURT:** Well, look. Just a minute. Here is why
9 the -- the witness testified at the end of her direct to the
10 "thou shalt not steal" conversation, meaning she saw somebody
11 at a Bat Mitzvah from Google, she said, who said the normal --
12 the guy from Google said the normal rules don't apply to Google
13 and she said, "thou shalt not steal." All right. So in the
14 interests of completeness, I'm going to allow 1074 with a
15 limitation because this is also a communication from Google
16 about the same general subject which has a different drift.

17 Now, it's not admissible for the truth of it. For
18 example, what you're going to see, the guy from Google -- this
19 is a different guy, a guy named Alan, and he makes an argument
20 about why they're not using Oracle's IP and so forth. So it's
21 not -- it's not admissible for the truth of the statement, but
22 it is admissible to complete the story of what was communicated
23 to this witness on the stand from Google, to balance out the
24 "thou shalt not steal" conversation. I think it's legitimate
25 to admit it for that and just keep in mind -- so put it up on

CATZ - REDIRECT / HURST

1 the screen and let the jury see the -- see the document and
2 it's admitted with this limitation.

3 **MS. ANDERSON:** Thank you, Your Honor.

4 **THE COURT:** If you have further questions to ask
5 Ms. Catz about it, you may ask now.

6 (Trial Exhibit 1074 received in evidence)

7 **THE COURT:** Do you have any more questions? Do you
8 have more questions on this?

9 (Document displayed.)

10 **MS. ANDERSON:** No, Your Honor. Google will just have
11 it moved in evidence.

12 **THE COURT:** Do you have any more questions on this,
13 Ms. Hurst?

14 **MS. HURST:** No, I don't, Your Honor.

15 **THE COURT:** All right. Now, may the witness be
16 excused?

17 **MS. HURST:** Yes, from our perspective.

18 **MS. ANDERSON:** Yes, Your Honor. Thank you.

19 **THE COURT:** Ms. Catz, have a great day. Thank you for
20 coming. Leave all those documents there. And we will clear
21 off the bench.

22 (Witness excused.)

23 **THE COURT:** Can you all hold out a little longer and
24 go 15 or 20 minutes before our break?

25 (Jurors respond affirmatively.)

SCREVEN - DIRECT / HURST

1 **THE COURT:** Call your next witness.

2 **MS. HURST:** Your Honor, Oracle calls Edward Screven.

3 **THE COURT:** Raise your right hand and take an oath to
4 tell the truth.

5 **EDWARD SCREVEN, PLAINTIFF'S WITNESS, SWORN**

6 **THE CLERK:** Please state your name for the Court, and
7 spell your last name for the record.

8 **THE WITNESS:** Yes. My name is Edward Screven. My
9 last name is spelled S-c-r-e-v-e-n.

10 **MS. HURST:** Your Honor, I was just going to get those
11 exhibits out of the way from the last witness.

12 **THE COURT:** Thank you.

13 Mr. Screven, welcome to you.

14 You need to get about this close to the mic so it will
15 catch your voice. Make yourself comfortable and we'll ask you
16 some questions.

17 **DIRECT EXAMINATION**

18 **BY MS. HURST**

19 **Q.** All right. Mr. Screven, would you please introduce
20 yourself to the jury.

21 **A.** Yes. As I said, my name is Edward Screven. My title is
22 chief corporate architect. I've worked at Oracle for about 30
23 years. I'm married. I have two children.

24 **Q.** And what do you do?

25 **THE COURT:** Did you say you've worked at Oracle for 30

1 years?

2 **THE WITNESS:** Almost 30 years.

3 **THE COURT:** How old are you?

4 (Laughter)

5 **THE WITNESS:** I will be 52 this summer.

6 **THE COURT:** All right.

7 **MS. HURST:** Youthful-looking Mr. Screven.

8 (Laughter)

9 **THE COURT:** I would have thought he was 29.

10 **THE WITNESS:** When I put on these reading glasses, you
11 may see a difference.

12 (Laughter)

13 **BY MS. HURST**

14 **Q.** What do you do, sir, as the chief corporate architect?

15 **A.** Well, my job is overseeing technology at Oracle,
16 overseeing how pieces of technology fit together.

17 I get involved in our mergers and acquisitions activities.
18 And that includes doing technical due diligence.

19 I'm responsible for a couple of businesses at Oracle. So
20 our Linux business and our MySQL business.

21 I'm also in charge of security at Oracle. And, you know,
22 various other functions.

23 **Q.** All right. And did you work your way up in that 30 years?

24 **A.** Yes. I joined -- I joined Oracle out of college, and
25 started off as a programmer. And have just stayed there ever

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1 since.

2 Q. Are you familiar with the use of Java at Oracle?

3 A. Yes, very familiar.

4 Q. And would you explain to the jury the role Java plays in
5 Oracle's technologies.

6 A. Well, Java is one of the most important technologies to
7 Oracle.

8 For one thing, it's used in our database to help our
9 customers build applications. They use the database. It is
10 the foundation for our middleware, which is software that is
11 used to put together applications. And, of course, our own
12 applications are written using Java.

13 By "applications" in this case I mean business
14 applications.

15 Q. All right. And was all of that true before Oracle
16 acquired Sun?

17 A. Yes.

18 Q. And, you know, you used this term "middleware."

19 Would you just explain that to the jury. I think that's a
20 hard one for some of us.

21 A. So if I'm building an application which is typically a Web
22 application, you know, I have the user on one side and I have
23 the database on another side.

24 And middleware is the software that lets me write my
25 business logic. So it's the software that says if I'm

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1 submitting an order, you know, what are all of the -- what are
2 all of the steps that I needed to carry out in order to put
3 that purchase order inside the database and then check the
4 rules the companies may have about what is a valid purchase
5 order.

6 So it's the environment in which an application programmer
7 implements the business logic of the application.

8 **Q.** Okay. And were you involved in Oracle's decision to
9 acquire Sun?

10 **A.** Yes.

11 **Q.** What was your involvement in that?

12 **A.** Uhm, very involved. I report directly to Larry Ellison,
13 who was CEO of Oracle at the time and is now chairman. And
14 among senior executives we discussed whether it made sense to
15 buy Sun. And because Java was so very important to Oracle, I
16 was a strong proponent of acquiring Sun.

17 **Q.** So were you in favor of the deal?

18 **A.** Oh, very much.

19 **Q.** Were you in favor of the deal because you thought that
20 would give you a chance to sue Google?

21 **MR. PURCELL:** Objection. Leading.

22 **THE COURT:** I'll allow the question. It's
23 argumentative in a way. But, given the suggestion that's been
24 made, Oracle is entitled to direct denial.

25 So you can answer the question.

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1 **THE WITNESS:** No, it -- no. I was in favor of
2 acquiring Sun because Java was a very important technology to
3 Oracle. It let us build many different kinds of products. And
4 it seemed to me that it would enable us to continue growing our
5 business around Java.

6 **BY MS. HURST**

7 **Q.** Prior to acquiring Sun, what was Oracle's relationship
8 with Sun, if any, as it pertained to Java?

9 **A.** Well, we were a customer of Sun's. So we had licenses
10 from Sun, including a spec license, something called a TCK
11 license, and also commercial licenses that let us build
12 independent implementations of Java and also distributed Sun's
13 implementation of Java.

14 **Q.** All right. Sir --

15 **MS. HURST:** May I approach, Your Honor?

16 **THE COURT:** You may.

17 **BY MS. HURST**

18 **Q.** I'm going to show you an exhibit that is marked number
19 610.1.

20 Do you recognize Exhibit 610.1?

21 **A.** Yes. This is a Java spec license for Java version 5.

22 **Q.** And was this form of the license a legal document that was
23 in effect between Oracle and Sun at the time?

24 **A.** Yes.

25 **Q.** And which version of the Java platform does that pertain

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1 to?

2 **A.** It's version 5. Also, it's sometimes called 1.5.

3 **MS. HURST:** Move the admission of 610.1, Your Honor.

4 **MR. PURCELL:** No objection.

5 **THE COURT:** 610.1 received in evidence.

6 (Trial Exhibit 610.10 received in evidence.)

7 (Document displayed.)

8 **BY MS. HURST**

9 **Q.** All right. So this was -- for you at Oracle, even before
10 you acquired Sun, you were operating under this license; is
11 that right?

12 **A.** Yes, that's right.

13 **Q.** Okay. And, first of all, did you have any understanding
14 at the time as to whether this specification license allowed
15 developers to create Java applications?

16 **A.** Yes, definitely. In fact, it's explicitly mentioned in
17 the first paragraph.

18 **Q.** So that's in the first paragraph?

19 **A.** Yes.

20 **Q.** The notice. It starts "Notice"; is that right?

21 **A.** That's right.

22 **Q.** Okay. Would you explain how that paragraph related to you
23 as application developer?

24 **A.** Uhm, well, it says that, you know, you have the right to
25 use the specification internally, which shall be understood to

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1 include developing applications intended to run on an
2 implementation of the specification.

3 **Q.** Okay.

4 **THE COURT:** Can you explain the word "specification."

5 **THE WITNESS:** Yes. So the Java specification is --
6 it's two things put together. It's a set of Java source
7 language declarations and English text that describes what
8 those declarations do.

9 **THE COURT:** So -- but does not include the
10 implementation itself?

11 **THE WITNESS:** That's correct.

12 So the source language components of the -- of the
13 specification are declarations. And then what an independent
14 implementation does is they then write Java programming
15 language statements that fill in the implementation.

16 **THE COURT:** All right. So our jury has heard the term
17 "declaring lines of code." So you're telling us that that
18 equates to the specification; is that true?

19 **THE WITNESS:** Yes. Declaring lines of code would be
20 another -- another way to say declaration, yes.

21 **THE COURT:** Or specification?

22 **THE WITNESS:** Uh-huh.

23 **THE COURT:** And then -- but the specification, as
24 you've described it, also includes the commentary in just plain
25 old English words that help you understand what the

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1 specification does; is that true?

2 **THE WITNESS:** That -- that is true. Although, I would
3 say, you know, the central part of the specification really
4 is -- are those declaring statements. It is -- it is -- it is
5 the thing that fundamentally defines the APIs that either
6 applications use or independent implementers implement.

7 **THE COURT:** All right. So under this document that
8 you're showing us now, Oracle, back at the time, had permission
9 under this document to take the declarations and do its own
10 implementing code; is that what you're telling us?

11 **THE WITNESS:** Well, okay. So there -- there, of
12 course, are important conditions in the license about creating
13 an independent implementation. So the first paragraph is about
14 the right to create applications that call the API. The second
15 paragraph talks about the right to create an independent
16 implementation.

17 **MS. HURST:** All right. Trudy, why don't we put the
18 second paragraph up.

19 (Document displayed.)

20 **MS. HURST:** Would you like to continue, Your Honor?
21 Or should I continue?

22 **THE COURT:** You go ahead. I may interrupt, but go
23 ahead.

24 **MS. HURST:** Okay.

25

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1 **BY MS. HURST**

2 Q. So I think the second paragraph, Mr. Screven, was what you
3 were referring to in answer to the Court's questions. Why
4 don't you explain those conditions --

5 **MS. HURST:** Trudy, can we get that over a little more
6 to the left so we can read it clearly. Sorry.

7 **BY MS. HURST**

8 Q. All right. Why don't you walk us through those conditions
9 you referred to.

10 A. Sure.

11 So this paragraph is Sun granting the right to create an
12 independent implementation of the specification with the
13 following conditions:

14 First of all, the independent implementation must fully
15 implement the spec. And so that means that -- that Oracle, as
16 an independent implementer, would actually have to implement
17 all of the declarations that are part of that API
18 specification.

19 You know, that's -- that is important because Java has
20 this characteristic of write once, run anywhere, which means
21 that if I build my Java application, I can run it in many
22 different environments on many different implementations of the
23 specification.

24 Number two, this double ii clause really further expands
25 that idea, right, which is that your independent implementation

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1 must not modify, subset, superset or otherwise extend the
2 license or namespace. And it goes on to talk about various
3 kinds of Java programming language elements.

4 Again, that is a way to require implementations to fully
5 implement the spec and not add anything to the spec.

6 So, in other words, if Sun's implementation of Java has a
7 certain set of methods for the class file, then Oracle, when we
8 do our independent implementation, we're not allowed to add
9 things to the file, because an application programmer may
10 become confused about what they can actually depend on between
11 our two different implementations.

12 We also would not be allowed to actually remove a method
13 from a file because, again, you know, that would mean that
14 applications could no longer enjoy this write once, run
15 anywhere characteristic.

16 **Q.** So let's just stop there for a minute, Mr. Screven.

17 There's a reference to "licensor name space." Do you see
18 that?

19 **A.** Yes.

20 **Q.** What did you understand that to mean at the time?

21 **A.** Well, in the Java programming language, declarations are
22 organized into a hierarchical namespace. So, in other words,
23 you could kind of think of it as, like, a person's name is
24 Edward Screven. So, you know, Edward is my short name, and
25 Screven is my family name.

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1 Well, in Java it's sort of similar. So there's a -- more
2 or less a family name called Java. And all of the
3 declarations -- you know, and there are many, many declarations
4 as part of that Java name family.

5 There's also another name family called javax. There's
6 another name family called com.Sun. So those top-level parts
7 of that namespace are restricted under this license.

8 So I, as an independent implementer, am not allowed to
9 actually put new names into that namespace, because
10 programmers -- application programmers assume that declarations
11 that are within those namespaces are part of standard Java
12 specification. And if they write their programs under that
13 assumption, then when they try to run their application on
14 someone else's Java platform, it won't work.

15 Q. All right. And then there's a third condition. Could you
16 explain that.

17 A. Yes. The third condition says that the independent
18 implementation must pass something called the TCK.

19 So TCK stands for Technology Compatibility Kit. The TCK
20 is a collection of programs that actually call the
21 specification API.

22 And if you -- if those programs run correctly, the
23 programs are designed to verify that the specification is -- is
24 correct, then there's a high level of assurance that the
25 independent implementation actually does correctly implement

1 the specification.

2 Q. All right. You've used this term "independent
3 implementation" several times. Could you describe what that
4 is, sir.

5 A. Yes. So as -- as Your Honor was actually asking about,
6 creating independent implementation means taking the Java
7 programming language declarations that are part of the
8 specification and then inserting -- you know, putting those
9 into source files, Java source files, and then adding to those
10 source files, you know, Java programming language statements
11 that carry out the operations declared by the specification.

12 Q. Okay. Is that the same thing as a clean room?

13 A. No, no. That's totally different.

14 Q. Why not?

15 A. Well, a clean room is when I am intentionally trying to
16 avoid having to satisfy some -- some license terms or avoid
17 having -- trying to pay some money where I intentionally don't
18 use a specification that requires a license.

19 So creating an independent implementation under this
20 license is definitely not a clean-room operation.

21 Q. All right. You mentioned that it was important -- these
22 terms were important for preserving write once, run anywhere.
23 Could you explain that a little bit more for the jury.

24 A. Yes. As a -- as a programmer who's writing Java
25 applications, one of the very most important aspects of Java is

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1 that if I write a Java application against the Java APIs, then
2 I can run my Java application in many different environments.
3 So not only in different operating systems on different types
4 of computers, but also against different implementations of
5 Java.

6 So if I build my application using Oracle's Java platform,
7 I can also run it on IBM's Java platform. I can also run it on
8 Red Hat's Java platform. So as an application programmer
9 that's very important because it means I have the widest
10 possible market for my application at what is really a low
11 cost.

12 Q. And was that compatibility requirement -- did you consider
13 whether that was beneficial to customers because it promoted
14 competition?

15 A. It definitely promotes competition. It promotes
16 competition among Java platform vendors. And, also, it lowers
17 the cost for application developers. So, you know, a small
18 group of people can build an application which runs in many
19 different environments on many different platforms.

20 I can tell you from Oracle's experience a long time ago,
21 before we wrote software in Java we wrote software in C. So
22 even though there are such things as C libraries, it was very
23 expensive for us to actually run our applications on many
24 different platforms. We had to do a lot of work to make them
25 suitable to run on all those different platforms. With Java,

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1 we don't have to do that.

2 Q. And so what happened, then, if there's a lack of
3 compatibility?

4 A. Well, what happens is basically I -- I have to make one of
5 two choices. Either I have to spend a lot of money to put my
6 application on to different environments and different Java
7 platforms, or I get locked into one single Java implementation.

8 Q. All right. You mentioned that TCK was a requirement of
9 this?

10 A. Yes.

11 Q. What was a TCK?

12 A. The TCK is a collection of programs that -- that -- whose
13 purpose is to actually exercise the API.

14 So, in other words, they call the -- the method and other
15 parts of the API specification in order to -- and check the
16 results from that -- from those calls in order to verify that
17 the implementation of the specification is -- is correct.

18 Q. All right. So that's -- that TCK is actually software
19 also?

20 A. Yes. It's a collection of Java programs.

21 Q. All right. So is there a license with that software?

22 A. Yes. That software is licensed as well.

23 Q. All right. And would you describe the TCK license,
24 please.

25 A. Well, it's -- it's -- there is a fee. It's a -- it's a

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1 moderate fee. I mean, it's not -- it's not -- it's not
2 prohibitively expensive. But it is -- you know, it is -- it's
3 a separate license than the spec license.

4 **Q.** And are there any restrictions in the TCK license?

5 **A.** Uhm, well, you know, you need to pass the TCK, right, in
6 order to actually -- actually have a compatible version of
7 Java.

8 **Q.** And were there any other sorts of restrictions that you
9 understood at the time with respect to the TCK and how the
10 software, the compliant software could be used?

11 **A.** Well, you know, if I -- if I want to -- to distribute my
12 Java platform, I have to pass the TCK.

13 **Q.** All right. And did you have any understanding at the time
14 that you could simply avoid those TCK requirements by not
15 calling it Java?

16 **MR. PURCELL:** Objection. Foundation.

17 **THE COURT:** Sustained.

18 **BY MS. HURST**

19 **Q.** Did you, at Oracle, actually operate under this
20 specification license back in this 2004 to 2006 time frame?

21 **A.** Yes, we did.

22 **Q.** And did you actually have to take a TCK license and pass
23 it?

24 **A.** Yes, we did.

25 **Q.** And you were familiar with that process at the time?

1 **A.** Yes.

2 **Q.** And was it your understanding at the time, given the spec
3 license and the TCK terms with which you were familiar, that
4 you could simply avoid those tests by not calling it Java?

5 **A.** No.

6 **MR. PURCELL:** Objection. Foundation. Also calls for
7 a legal conclusion.

8 **THE COURT:** Sustained for now.

9 **BY MS. HURST**

10 **Q.** As part of your business as the corporate architect, did
11 you need to have an understanding of the license terms in order
12 to operate your technology?

13 **A.** Yes.

14 **Q.** And you acquired that understanding in order to develop
15 your technology?

16 **A.** Yes.

17 **Q.** Based on that business understanding at the time, what did
18 you believe you could do with respect to the TCK and your
19 independent implementation?

20 **A.** That if we didn't pass the TCK, we couldn't distribute any
21 implementation of the specification.

22 I think the specification license is actually very clear
23 about that. It says that your license to create an
24 implementation depends on passing the TCK.

25 **Q.** All right. Now, have you ever heard of the Apache

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1 Software Foundation?

2 **A.** I have. It's a consortium of companies and developers
3 that create open source software under the Apache license.

4 **Q.** And have you ever heard of an Apache project called
5 Harmony?

6 **A.** I have. It was a project -- it was a project whose goal
7 was to create an independent implementation of Java.

8 **MS. HURST:** Trudy, could we put 610.1 back up, that
9 second paragraph, please.

10 (Document displayed.)

11 **BY MS. HURST**

12 **Q.** So did you have any understanding at the time whether
13 Harmony was operating under any license?

14 **A.** Yes. Harmony was operating under the spec license.

15 **Q.** And can you explain that.

16 **A.** Well, to get access to the specification in order to
17 create an implementation, you actually -- you actually accept
18 the spec license. And in order to create an implementation of
19 the specification, I mean, you must be operating under the spec
20 license.

21 **Q.** So we heard some testimony that Google was able to
22 download files from Apache.

23 What is your understanding, if any, at the time about
24 whether that was part of the spec license?

25 **MR. PURCELL:** Objection. Foundation.

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1 **THE COURT:** Sustained.

2 **BY MS. HURST**

3 **Q.** Did the spec license, to your understanding at the time,
4 permit the open development of an independent implementation?

5 **MR. PURCELL:** Objection. Foundation.

6 **THE COURT:** I question whether he's in a position to
7 answer that question.

8 **MS. HURST:** Let me move forward, and then I'll move
9 back, Your Honor.

10 **BY MS. HURST**

11 **Q.** Were you involved in any industry communications on behalf
12 of Oracle around this whole Harmony situation?

13 **A.** Yes.

14 **Q.** What communications were you involved in?

15 **MR. PURCELL:** Objection. Calls for hearsay.

16 **THE COURT:** Let's hear the answer. Just tell us the
17 general nature of the communications first.

18 **THE WITNESS:** It was an open letter signed by many
19 folks, including myself, to Sun, that -- that urged Jonathan
20 Schwartz to give a TCK license to the Apache Harmony Project.

21 **THE COURT:** Haven't we already heard about this?

22 **MR. PURCELL:** Yes, Your Honor.

23 **MS. HURST:** Yes.

24 **THE COURT:** All right. Well, then, I will allow the
25 testimony. Go ahead.

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1 BY MS. HURST

2 Q. All right. Let me find Exhibit 2347 here, Mr. Screven.

3 This is already in evidence.

4 (Document displayed.)

5 Q. Is this a letter that you were referring to?

6 A. Yes, this is the letter.

7 Q. And you signed this on behalf -- so this was before the
8 merger?

9 A. This is before the merger, yes.

10 Q. So you signed this on behalf of Oracle?

11 A. Yes.

12 Q. And what, on behalf of Oracle, were you asking Sun to do?

13 A. We were asking Sun to grant a TCK license to the Apache
14 Harmony Project.

15 Q. And what was your understanding, if any, as to the
16 necessity of such a license?

17 A. That it was essential. That in order for Apache to
18 deliver an independent implementation of Java, they would have
19 to actually have a TCK license and pass the TCK test.

20 Q. Was Apache already developing an implementation of Java?

21 A. They were already developing an implementation of Java.

22 Q. So how did that relate to what you're describing?

23 A. Well, in order to actually distribute your Java
24 implementation, you have to pass the TCK tests. In order to
25 have a TCK test to run, you have to have a license.

1 Now, you know, you could start developing your independent
2 implementation before you've got the license. But before you
3 actually distribute, make it available to other parties, you
4 need to have this TCK license and pass the TCK tests.

5 **Q.** Now, who was this letter addressed to?

6 **A.** It was addressed to Sun's CEO at the time, named Jonathan
7 Schwartz.

8 **Q.** And why did you, on behalf of Oracle, sign this letter?

9 **A.** Well, as I described earlier, Java was very important to
10 Oracle. It still is very important to Oracle.

11 And I was concerned that Sun, because they weren't doing
12 well in business terms, would stop being a good steward of
13 Java; that they might significantly reduce their level of
14 investment in the technology; they might change their licensing
15 practices in some way that was unfavorable to Oracle.

16 And so I thought it was in Oracle's best interests if
17 there was some other implementation of Java out there that --
18 you know, that we could rely on in case Sun could not be relied
19 upon.

20 **Q.** And what was Mr. Schwartz's response, if any, to the
21 letter?

22 **A.** He declined to give the license. So he said no.

23 **Q.** And what did Oracle do?

24 **A.** Well, basically nothing. We continued on as we had
25 before. We continued on with our spec license, our TCK

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1 license, and our commercial license. We continued paying Sun
2 for Java.

3 Q. All right. Let's just look -- what's the date on this
4 letter? And let's look at that on our timeline.

5 A. This is June 22nd, 2007.

6 Q. So that's before the first release of Android?

7 A. Yes.

8 Q. And were you knowledgeable about Android at the time?

9 A. No. At the time that I signed this letter, I had no idea
10 that Android existed as a project.

11 Q. All right. And what's the status of Harmony now?

12 A. Harmony is -- is discontinued as a project.

13 Apache Foundation has a term they use called "in the
14 attic," which means no one is working on it anymore. So Apache
15 Harmony is in the attic.

16 Q. All right. And are you aware of any unlicensed commercial
17 uses of Apache Harmony in the world today?

18 A. Only one. Only Android.

19 Q. Since acquiring Sun, has Oracle continued to license the
20 Java platform?

21 A. Yes. We license the Java platform in the same ways that
22 Sun did.

23 Q. And other than the spec license, would you briefly
24 describe what those ways are?

25 A. So beyond the spec license, of course, we still license

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1 the TCK. And we also -- we also have commercial licenses to
2 Java.

3 Then there's also a separate offering, called OpenJDK,
4 which is an implementation of Java, which is licensed under the
5 GNU license called GPLv2 with Classpath Exception.

6 **Q.** All right. So you have both commercial licenses and open
7 source licenses?

8 **A.** That's right. So we have a dual licensing strategy. So
9 OpenJDK is available to encourage application programmers to
10 learn and use Java.

11 And then we sell commercial licenses to companies that
12 wish to have support for Java so if they have issues we can
13 help them out, or if they wish to embed the license in devices
14 and they don't wish to have to -- to deal with restrictions
15 imposed upon them by the GPL license.

16 **Q.** And what sort of restrictions are those?

17 **A.** Well, the GPL requires a party that uses software under
18 the GPL to -- to, first of all, make the source code available
19 for -- for -- for that.

20 So, in other words, if I distribute OpenJDK to someone as
21 a third party, I have to provide the source code to OpenJDK.
22 But, moreover, if I change the OpenJDK to make it better in
23 some way so that I'm adding value to it, I changed it to make
24 it easier to embed on my smartphone, for example, then I have
25 to give away those changes for free. Right? I have to

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1 actually make the source code of those changes available for
2 free.

3 So, you know, we can sell commercial licenses to Java
4 because many parties don't want to have to do that. They want
5 to make their changes to -- to Java and keep them for
6 themselves at a competitive advantage.

7 Q. Well, wouldn't the Classpath Exception solve that problem?

8 MR. PURCELL: Objection. Foundation.

9 BY MS. HURST

10 Q. Are you familiar with the Classpath Exception as part of
11 your OpenJDK license?

12 A. Yes.

13 Q. Would you explain that, please.

14 A. Okay. So the Classpath Exception says that just because I
15 have written a program that combines the JDK with some other
16 components, those other components do not have to be licensed
17 under the GPL.

18 However, if I have changed the JDK, if I changed the
19 implementation of the APIs, then those changes must be released
20 under the GPL.

21 So the Classpath Exception does not permit someone to
22 optimize the JDK and then charge for it.

23 Q. What, to your understanding, does it permit then?

24 A. It permits me to create applications, my own applications,
25 and not have my components of the application be released under

1 the GPL. It also means that it's easier for me to mix in
2 components from other third parties.

3 **Q.** All right. So why do you have both of these types, both
4 commercial and open source licensing?

5 **A.** Well, it's a business strategy. So we strike a balance
6 between making Java as widely available as possible to
7 developers, to people who want to build applications, and then
8 charging for licenses for folks who want to embed Java. So
9 ISVs and smartphone manufacturers and other kinds of device
10 manufacturers.

11 So we have this thing called a dual-licensing strategy,
12 which is actually pretty common in the open source industry,
13 that lets us both widely promote Java, make it freely available
14 to programmers who want to build applications or just
15 experiment with it, and also charge companies that want to --
16 to embed it.

17 **MS. HURST:** No further questions.

18 **THE COURT:** Maybe this would be a good point for our
19 15-minute break. Please remember the admonition.

20 (Jury out at 9:23 a.m.)

21 **THE COURT:** All right. Be seated.

22 Anything the lawyers need me for?

23 **MR. VAN NEST:** I don't believe so, Your Honor.

24 **THE COURT:** All right.

25 **MS. HURST:** Nothing.

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1 **THE COURT:** We'll take our 15 minutes.

2 Oh, I have one thing for you. There have been four or
3 five documents that have been received for a limited purpose.
4 I would like for you to meet and confer and come up with a
5 sticker that says "This exhibit has been admitted for a limited
6 purpose," just to remind the jury when they're looking at it in
7 the jury room.

8 So can you come up with a yellow or, you know, green,
9 whatever color you want to do, something that will stand out
10 that will be on the front page near the exhibit number? Okay.

11 **MR. VAN NEST:** Yes, Your Honor.

12 **THE COURT:** Okay. Thank you. Let's take our break.

13 (Recess taken from 9:24 to 9:38 a.m.)

14 **THE COURT:** Be seated, please.

15 Can we bring in the jury?

16 **MS. HURST:** Yes, Your Honor.

17 **MR. VAN NEST:** Yes, Your Honor.

18 **THE COURT:** All right. Let's do that.

19 (Jury enters at 9:40 a.m.)

20 **THE COURT:** Welcome back. Please have a seat.

21 All right. Cross-examination may begin.

22 **CROSS-EXAMINATION**

23 **BY MR. PURCELL**

24 **Q.** Good morning, Mr. Screven.

25 **A.** Good morning.

SCREVEN - CROSS / PURCELL

1 **Q.** I think you testified on direct that you've worked at
2 Oracle for 30 years; correct?

3 **A.** I think I said almost 30 years.

4 **Q.** Just about?

5 **A.** Uh-huh.

6 **Q.** And that was your first job straight out of college;
7 correct?

8 **A.** That's right.

9 **Q.** And you've worked at Oracle for your entire professional
10 career?

11 **A.** I took a leave of absence for seven months and did some
12 independent consulting.

13 **Q.** Other than that, you've never worked anywhere for the
14 entirety of your professional career; right?

15 **A.** That's right.

16 **Q.** And in particular, Mr. Screven, you never worked at Sun
17 Microsystems, did you?

18 **A.** No.

19 **Q.** You didn't work at Sun in the 1990s, when Sun first
20 introduced Java to the world; correct?

21 **A.** That's right.

22 **Q.** You had no role at all in creating the Java programming
23 language or the Java APIs?

24 **A.** That's right.

25 **Q.** You didn't work at Sun in the 1990s, when Sun created its

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1 strategy for promoting the Java Language and the APIs; correct?

2 **A.** That's right.

3 **Q.** You didn't work at Sun when Sun first developed its
4 strategy for licensing Java; correct?

5 **A.** That's right.

6 **Q.** You didn't work at Sun when Sun first learned of the
7 implementation of Java SE by the GNU Classpath project, did
8 you?

9 **A.** No, I've never worked for Sun.

10 **Q.** And you don't have any firsthand knowledge about how Sun
11 reacted to GNU Classpath at the time; correct?

12 **MS. HURST:** Your Honor, this is argument.

13 **THE COURT:** No. There's an argumentative aspect to
14 it, but it's establishing what he has personal knowledge of and
15 what not personal knowledge. So it's proper.

16 Overruled.

17 **BY MR. PURCELL**

18 **Q.** Mr. Screven, the question was, you have no firsthand
19 knowledge about how Sun reacted to GNU Classpath at the time it
20 was introduced; correct?

21 **A.** That's right.

22 **Q.** And, similarly, you didn't work at Sun when Sun first
23 learned of the independent implementation of Java SE by Apache
24 in the Apache Harmony Project; correct?

25 **A.** That's right.

SCREVEN - CROSS / PURCELL

1 **Q.** And you have no firsthand knowledge about how Sun reacted
2 to Apache Harmony; correct?

3 **A.** Well, I know that they did not give Apache Harmony a TCK
4 license; that they declined to actually grant them a license
5 when we signed and published an open letter.

6 **Q.** Mr. Screven, you have no firsthand knowledge of anything
7 that happened internally at Sun regarding Sun's position on
8 Apache Harmony; correct?

9 **A.** That's correct.

10 **Q.** And you didn't work at Sun when Sun had discussions with
11 Google in 2005 and 2006, about a technology partnership for a
12 mobile platform; correct?

13 **A.** Correct.

14 **Q.** So you have no firsthand knowledge about Sun's
15 negotiations with Google; correct?

16 **A.** Correct.

17 **Q.** And you didn't work at Sun when Google released Android in
18 November 2007, did you?

19 **A.** I did not.

20 **Q.** So you have no firsthand knowledge about how Sun reacted
21 to Android internally; correct?

22 **A.** Correct.

23 **Q.** And when the first Android phone was released in
24 October 2008, you still did not work at Sun; correct?

25 **A.** I still did not work at Sun.

1 **Q.** All right. But you were personally involved in Oracle's
2 decision to acquire Sun; correct?

3 **A.** Yes.

4 **Q.** And as part of evaluation whether to buy Sun, Oracle
5 engaged in due diligence about Sun's business; correct?

6 **A.** We had a very brief period in which to -- to evaluate Sun.
7 Not a normal kind of due diligence period. We had about two or
8 three days, at which time we met with Sun executives and
9 discussed things with them. But because of the timing -- there
10 was a competing offer from IBM -- it was a very short window.

11 **Q.** You participated in that due diligence process, that
12 abbreviated process personally; right?

13 **A.** I did.

14 **Q.** And you investigated Sun's business as exhaustively as you
15 could, given the limited time available; right?

16 **A.** Well, we -- we had certain questions in mind. They were
17 important to us during the acquisition process. And we -- we
18 asked those questions.

19 **Q.** Even before early 2009, when it was deciding whether to
20 acquire Sun, Oracle regularly maintained competitive
21 intelligence on Sun, didn't it?

22 **A.** Yes.

23 **Q.** That was a routine part of Oracle's business practice?

24 **A.** Well, we have a competitive intelligence group that
25 produces reports from time to time. I don't know how regular I

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1 would say it is. But, yes, they did produce competitive
2 intelligence reports, probably including on Sun.

3 Q. Now, this trial was about Java. And Java is software;
4 right?

5 A. Yes.

6 Q. But Sun's business was overwhelmingly focused on hardware,
7 not software; right?

8 A. Uhm, well, most of their revenue was hardware.

9 Q. In fact, over 95 percent of Sun's revenue was from
10 hardware; correct?

11 A. I actually don't know the percentage, but it was mostly
12 hardware.

13 Q. All right. Let's -- may I approach, Your Honor?

14 THE COURT: Okay.

15 BY MR. PURCELL

16 Q. Mr. Screven, this is Trial Exhibit 2036, which is in
17 evidence.

18 MR. PURCELL: And if we could get that up on the
19 screen.

20 (Document displayed.)

21 BY MR. PURCELL

22 Q. This is one of those competitive intelligence reports on
23 Sun, that we were just discussing; correct?

24 A. Yes, it looks like that, yes.

25 Q. And Oracle considers it important to create and maintain

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1 these sorts of intelligence reports; right?

2 **A.** Well, as different parts of the business base, different
3 competitors, they ask the competitive intelligence group to
4 create a report for them. So to them it's important.

5 **Q.** And Oracle tries to be sure that everything in its
6 competitive intelligence reports is accurate; correct?

7 **A.** I should hope so, yes.

8 **Q.** Oracle wouldn't want to deceive itself or give itself
9 inaccurate information about the state of competitors in the
10 market, would it?

11 **A.** Well, as -- as a person who might receive a competitive
12 intelligence report, I certainly hope the information is
13 accurate.

14 **MR. PURCELL:** All right. Could we go to slide 12,
15 please.

16 (Document displayed.)

17 **MS. HURST:** Which page of the exhibit?

18 **MR. PURCELL:** It's page 12.

19 **BY MR. PURCELL**

20 **Q.** You see that bar graph there, Mr. Screven, for Sun's
21 fiscal years 2007 and 2008?

22 **A.** Yes, I see that.

23 **Q.** And you see the first bullet there that says, "Sun is
24 primarily a hardware company. Sun's software revenue as a
25 percentage of total annual revenue is less than 5 percent, and

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1 its year-over-year growth is minimal."

2 Do you see that?

3 **A.** I see that.

4 **Q.** And that was accurate information about Sun, as far as
5 Oracle was aware in November of 2008, when this document was
6 created; right?

7 **A.** Well, it's consistent with my understanding of the time.

8 **Q.** It's consistent with your understanding that Sun's revenue
9 was 95 percent hardware, or more, 5 percent or less software;
10 right?

11 **A.** Well, again, I don't -- I don't have any sort of
12 independent recollection of the exact percentage. But, yes,
13 they were much more hardware than software.

14 **Q.** That's what this document says; right? It says 95/5?

15 **A.** That's what this document says.

16 **Q.** And if this were presented to you in the course of your
17 business at Oracle, as a competitive intelligence report
18 created by Oracle, you would rely on those numbers, wouldn't
19 you?

20 **A.** Uhm, yes, probably.

21 **Q.** And not only is Sun's software revenue less than 5 percent
22 of its total, but its year-over-year growth at the time was
23 minimal; right?

24 **A.** Yes.

25 **Q.** And when we're talking about Sun's software, we're not

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1 only talking about Java; correct? Sun had other software
2 products?

3 **A.** They did.

4 **Q.** And they're listed there; right?

5 And the second bullet says, "Software revenue consists of
6 Java middleware, identity management, MySQL, Solaris,
7 virtualization, and Java licensing"; right?

8 **A.** Yes.

9 **Q.** And there was more than just Java?

10 **A.** There is more than just Java.

11 **Q.** And the software revenue includes the Java licensing
12 business; correct?

13 **A.** Yes, that's right.

14 **Q.** So all of Sun's software, including its Java licensing
15 business, was less than 5 percent of Sun's revenue, according
16 to this document?

17 **A.** According to this document.

18 **MR. PURCELL:** Could we go to slide 14, please.

19 (Document displayed.)

20 **BY MR. PURCELL**

21 **Q.** This is the summary page, which has a number of takeaways.
22 The first one says, "Investing in Sun technologies is a
23 risky bet." Do you see that?

24 **A.** I see that.

25 **Q.** And then the third bullet from the bottom says, "Software

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1 is a 'step child' of the broader hardware business." Do you
2 see that?

3 **A.** I do.

4 **Q.** And that was Oracle's conclusion from its competitive
5 intelligence department about how Sun treated its software
6 business at the time; correct?

7 **A.** Well, it's -- it's their conclusion. Although, I probably
8 would have drawn a different conclusion than some of these
9 bullets.

10 **Q.** And then right below that it says, "Resignation of
11 software executive hurts employee morale and corporate focus."
12 Do you see that?

13 **A.** I do.

14 **Q.** You felt under Sun's direction the progress of Java had
15 stalled around the time of the acquisition, didn't you?

16 **A.** Yeah. They had slowed down their release cadence.

17 **Q.** Right. The regular releasing of new versions of software
18 with new functionality had slowed down; correct?

19 **A.** That's right.

20 **Q.** In fact, there hadn't been a new release of the Java SE
21 platform in about five or six year before the time Oracle
22 bought Sun?

23 **A.** I actually can't remember how long it was. But, yes, it
24 had definitely slowed down.

25 **Q.** Five or six years, that sounds about right to you?

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1 **A.** I really can't remember how long it was.

2 **Q.** But you did know that Sun's failure to deliver new
3 releases of Java was frustrating to companies that relied on
4 Java; right?

5 **A.** Yes.

6 **Q.** It was frustrating to Oracle specifically, wasn't it?

7 **A.** Yes.

8 **Q.** And Sun's failure to deliver new Java releases was also
9 frustrating to Java programmers and developers; right?

10 **A.** I imagine it probably was.

11 **Q.** I'd like to talk a little bit about the specification
12 license.

13 You testified during your direct examination that the
14 Apache Software Foundation took a specification license from
15 Sun; correct?

16 **A.** Uhm, well, I think what I may have testified is -- maybe I
17 misremember my words -- is that they had a specification
18 license because, you know, if you access the specification,
19 whether it's in book form or it's on the website, the
20 specification license is part of the book. It's -- you know,
21 it's a link on the Web page that you get when you download the
22 specification.

23 **MR. PURCELL:** Your Honor, right now I'd like to read
24 prior sworn testimony from Mr. Screven, at pages 560, line 24,
25 to 561, line 1.

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1 **MS. HURST:** What date?

2 **MR. PURCELL:** This is April 18, 2012.

3 **THE COURT:** All right. Go ahead.

4 **MS. HURST:** No objection.

5 **THE COURT:** What?

6 **MS. HURST:** No objection.

7 **THE COURT:** Please read.

8 **MR. PURCELL:** "And now you testified" --

9 **THE COURT:** You have to say "question."

10 **MR. PURCELL:** Sorry. I apologize, Your Honor.

11 **"Q.** And now you testified, I think, that Sun never gave a
12 license to Apache; correct?

13 **"A.** No, they never gave a license. That's right."

14 **BY MR. PURCELL**

15 **Q.** Do you know who Thomas Kurian is?

16 **A.** I do know who Thomas Kurian is.

17 **Q.** He's currently Oracle's president of product development;
18 correct?

19 **A.** That's right.

20 **Q.** And he reports directly to Mr. Ellison?

21 **A.** Yes.

22 **MS. HURST:** Your Honor, I have a rule of completeness
23 reading on that last read-in.

24 **THE COURT:** Is it adjacent to the same read-in?

25 **MS. HURST:** Yes. It's two questions prior.

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1 **THE COURT:** Go ahead and read those in.

2 **MS. HURST:** (As read:)

3 **"Q.** And you signed this letter requesting that Sun grant
4 a license to the Apache Harmony Project; correct?

5 **"A.** Yes.

6 **"Q.** And you wanted Sun to grant a license free of any
7 field-of-use restrictions to Apache Harmony; correct?

8 **"A.** Yes."

9 And then Mr. Purcell's portion:

10 **"Q.** And, now, you testified, I think, that Sun never gave
11 a license to Apache; correct?

12 **"A.** No, they never gave a license. That's right."

13 **THE COURT:** All right. Thank you.

14 Go ahead.

15 **MR. PURCELL:** Your Honor, I'd like to read a portion
16 of Mr. Kurian's prior sworn testimony, dated April 17, 2012,
17 page 396, lines 3 to 9, and then page 397, line 19, to 398,
18 line 4.

19 **THE COURT:** Who is Mr. Kurian?

20 **MR. PURCELL:** Mr. Kurian, as the witness just said, is
21 Oracle's president, who reports directly to Mr. Ellison.

22 **THE COURT:** All right. Go ahead. Read it.

23 **MR. PURCELL:** This is Thomas Kurian speaking.

24 **"Q.** Okay. Now, Apache Harmony, that wasn't owned by Sun
25 or Oracle?

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1 **"A.** No, it was not.

2 **"Q.** Apache Harmony, that's an independent project?

3 **"A.** That's an independent project, yes.

4 **"Q.** And Apache Harmony never took a license from Sun;
5 right?

6 **"A.** Correct. They were never granted a license from Sun.

7 **"Q.** These libraries were out there being used by Harmony
8 with no license from Sun since approximately 2005;
9 correct?

10 **"A.** Yes. There had been many discussions between Apache
11 and both Sun and the Java community process about
12 resolving this matter, but no license had been granted.

13 **"Q.** So in 2005, 2006, 2007, 2008, 2009, Apache was using
14 the same libraries and the same APIs we're talking about
15 in this case without license from Sun; correct?

16 **"A.** Correct. And Sun had been trying to negotiate with
17 Apache about a license because Apache had petitioned Sun
18 for such a license."

19 **BY MR. PURCELL**

20 **Q.** Now, you testified on direct, Mr. Screven, that you're not
21 aware of any Apache products in the market, any commercial
22 products other than Android; correct?

23 **A.** No. I said I'm not aware of any unlicensed products other
24 than Android.

25 **Q.** So you're not aware of IBM having any products using

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1 Apache Harmony on the market?

2 **A.** IBM has Java licenses.

3 **Q.** IBM doesn't have a license to contribute IBM code back to
4 Apache Harmony for Apache Harmony to freely distribute, does
5 it?

6 **A.** Uhm, I don't think they have the right to -- to -- to pass
7 on to third parties the -- the rights that you're given under
8 the specification license, TCK license, or commercial licenses.

9 **Q.** All right. And you also testified on direct about the
10 terms of the specification license; right?

11 **A.** Yes.

12 **MR. PURCELL:** Could we get that up on the screen.

13 That's Exhibit 610.1.

14 (Document displayed.)

15 **BY MR. PURCELL**

16 **Q.** This license was written at Sun by Sun; correct?

17 **A.** Well, I assume that Sun wrote it. I actually don't know
18 if they wrote it or not.

19 **Q.** You weren't at Sun when this license was first published?

20 **A.** That's right.

21 **Q.** Now, I think you testified that the specification license
22 is required to use the declaring lines of code that we're
23 talking about in this case; right?

24 **A.** Well, it's the only license I know about that allows
25 someone to create an independent implementation. It's -- and

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1 it also grants application programmers the right to create
2 applications against that specification.

3 Q. Mr. Screven, this specification license -- isn't it your
4 testimony that this specification license is the license that
5 gives a developer permission to use the lines of declaring
6 code?

7 A. Yes.

8 Q. All right. And declaring code is a form of source code.
9 That's Oracle's position in this case; right?

10 A. Declaring code is a form of source code.

11 Q. All right. Now, the specification license requires that
12 any independent implementation be compatible with Java; right?

13 A. Yes.

14 Q. And any independent implementation has to pass the TCK,
15 the Technology Compatibility Kit; right?

16 A. Yes.

17 Q. And to be compatible and to pass the TCK, an
18 implementation has to use the declaring code not just of the 37
19 API packages at issue here, but all the declaring code from all
20 the API packages in the Java platform; right?

21 A. Yes. The specification license requires you to create a
22 complete implementation of the specification.

23 Q. Right. So you have to use all of the declaring code, copy
24 all of the declaring code word for word; right?

25 A. If you're creating an independent implementation, yes.

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1 **Q.** All right. And Oracle developed an independent
2 implementation, I think you said; correct?

3 **A.** Yes.

4 **Q.** So Oracle used the declaring code?

5 **A.** Yes.

6 **Q.** Of all the API packages word for word; right?

7 **A.** Yes.

8 **Q.** And Oracle had to do that in order to pass the TCK?

9 **A.** Yes.

10 **Q.** And Oracle did, in fact, test its independent
11 implementation using all that declaring code against the TCK,
12 and passed the TCK; right?

13 **A.** Yes.

14 **MR. PURCELL:** I'd like to blow up the definition of
15 "independent implementation," which is about two-thirds of the
16 way down the page.

17 **BY MR. PURCELL**

18 **Q.** Do you see that definition, Mr. Screven?

19 **A.** Yes.

20 **Q.** Your counsel didn't show this definition to you during
21 your direct examination, did she?

22 **A.** Uhm, I don't think so.

23 **Q.** All right. So just reading the definition, it says,
24 "Independent implementation shall mean an implementation of the
25 specification that neither derives from any of Sun's source

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1 code or binary code materials nor, except with an appropriate
2 and separate license from Sun, includes any of Sun's source
3 code or binary code materials."

4 Do you see that?

5 **A.** Yes.

6 **Q.** So this says an independent implementation may not use any
7 Sun source code; right?

8 **A.** That's right.

9 **Q.** In fact, it forbids an independent implementation from
10 using any Sun source code; right?

11 **A.** It defines an independent implementation as not using
12 source code. I wasn't exactly sure I would use the word
13 "forbid."

14 **Q.** All right. But that's exactly what Oracle did when it
15 developed its own independent implementation. It did use the
16 source code, the declaring code. In fact, it copied it word
17 for word; right?

18 **A.** Yes. But the implementation that this is referring to,
19 the source code they're referring to here, is actually the
20 lines of code that -- that are the Java statements, the
21 carryouts, the operation of the declaration.

22 **Q.** Okay. So in this license, your testimony is that source
23 code excludes declaring code and only refers to implementing
24 code; right?

25 **A.** No. So -- so independent implementation shall mean an

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1 implementation of the specification. Implementation is source
2 code. But implementation is not all the source code that you
3 wind up having in the platform.

4 So all of the source code that you have in the platform is
5 the conjunction of the declaring source code plus the
6 implementation code.

7 The implementation code are the procedural Java statements
8 that you add to the declaring source code to create the
9 independent implementation.

10 Q. Mr. Screven, you said that source code includes declaring
11 code; right?

12 A. Yes.

13 Q. And you said that you have to, to create an independent
14 implementation, use all the declaring code; right?

15 A. Yes.

16 Q. And this section says that in order to create an
17 independent implementation, you may not use any source code?

18 A. Actually, it says -- it says "shall mean an implementation
19 of the specification."

20 So implementation is the source code, which -- which is
21 the lines of code that actually carry out the operations
22 declared by the declaring source code.

23 Q. The declaring code is repeated in the implementation,
24 Mr. Screven, isn't it?

25 A. Yes, but --

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1 **Q.** In fact, it can't work -- the implementation can't work
2 unless the declaring code is repeated in the implementation;
3 correct?

4 **A.** That -- that's right.

5 **Q.** All right. Thank you.

6 Mr. Screven, this specification license never mentions the
7 phrase "declaring code"; right?

8 **A.** No, I don't think --

9 **Q.** And it never says anything about structure, sequence and
10 organization, does it?

11 **A.** I don't think it says that, no.

12 **Q.** All right.

13 **MR. PURCELL:** May I approach, Your Honor?

14 **THE COURT:** Sure.

15 **BY MR. PURCELL**

16 **Q.** Mr. Screven, this is Trial Exhibit 2237, which is also in
17 evidence.

18 (Document displayed.)

19 **Q.** This is a document that Oracle submitted to the European
20 Commission when it acquired Sun; correct?

21 **A.** I'm actually not familiar with this document. I mean,
22 it -- it says it's -- actually, I'm not sure where it actually
23 says that, but, uhm.

24 **THE COURT:** Wait a minute. Is this the same document?

25 **MS. HURST:** I'm confused.

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1 **THE COURT:** Is this the same document that --

2 **MR. PURCELL:** It is not.

3 **MS. HURST:** When did this come into evidence?

4 **MR. PURCELL:** I believe it was stipulated in
5 yesterday. Am I right?

6 If it's not, I apologize.

7 **MR. BICKS:** It's not.

8 **MR. PURCELL:** I apologize.

9 **MS. HURST:** I don't think this is in evidence, Your
10 Honor.

11 **MR. PURCELL:** All right. I apologize for publishing
12 it to the jury.

13 **MR. VAN NEST:** It's on the preadmitted list.

14 **MR. PURCELL:** It's preadmitted, Your Honor.

15 **MS. HURST:** I still object. This witness lacks
16 foundation.

17 **MR. PURCELL:** Well, Your Honor, may I read from
18 Mr. Screven's prior sworn testimony, at page 552, line 19 to
19 24?

20 **THE COURT:** Sure.

21 **MR. PURCELL:** (As read:)

22 **"Q.** Mr. Screven, I've handed you Trial Exhibit 2237. Do
23 you recognize this document, sir?

24 **"A.** Yes, I do.

25 **"Q.** And this is the -- a report that Oracle prepared

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1 about the acquisition of Sun to submit to the European
2 community?

3 **"A. Yes."**

4 **BY MR. PURCELL**

5 **Q.** So, Mr. Screven, between April 18th, 2012, and today have
6 you forgotten this document?

7 **A.** You know, if I haven't seen the document in four years,
8 yeah, probably I can't be sure what document it is in front of
9 me. I mean, so.

10 **MR. PURCELL:** All right. If we could get it back up
11 on the screen, please.

12 (Document displayed.)

13 **MR. PURCELL:** So could we go to the last page of the
14 document. And just blow up the signature block, please.

15 (Document displayed.)

16 **BY MR. PURCELL**

17 **Q.** So this document is dated July 30, 2009. Do you see that?

18 **A.** I see that, yes.

19 **Q.** So that's about 20 months or so after Google first
20 released the Android software publicly; right?

21 **A.** Yes.

22 **MR. PURCELL:** Could we turn to page 65 of the
23 document.

24 (Document displayed.)

25 **MS. HURST:** Exhibit page 65, Mr. Purcell.

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1 **MR. PURCELL:** It's page 61 of the submission, page 65
2 of the document.

3 Could we blow up the -- actually, strike that. Let's try
4 to shortcut this a little bit.

5 Let's go to the next page, page 66 of the document, page
6 62 of the submission.

7 (Document displayed.)

8 **MR. PURCELL:** And could we look at the last full
9 paragraph.

10 **BY MR. PURCELL**

11 **Q.** Do you see that Oracle represented to the European
12 Commission that a license from Sun is not a prerequisite for
13 all development scenarios?

14 **A.** Yes.

15 **Q.** Do you see that?

16 And then there's a chart that summarizes scenarios in
17 which a license might be required. And each scenario is
18 described in greater detail in the text that follows. Do you
19 see that?

20 **A.** Barely. It's pretty blurry.

21 **Q.** It is blurry, unfortunately.

22 **MR. PURCELL:** If we could go to the next page.

23 (Document displayed.)

24 **MR. PURCELL:** All right. So there's the end of the
25 chart. And then if we go down to the -- scroll down, please,

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1 Jeff. And the next-to-last paragraph.

2 (Document displayed.)

3 **BY MR. PURCELL**

4 **Q.** All right. So Oracle is telling the European Commission
5 here that, "Only vendors that modified the source code of the
6 reference implementation or create independent implementations
7 and want to distribute their products as Java-compliant need
8 TCK licenses." Do you see that?

9 **A.** Yes.

10 **Q.** So what Oracle is saying here is that you need both to
11 either modify the source code or develop your own
12 implementation, and you need to want to distribute your product
13 as Java compatible in order to need a TCK license; right?

14 **A.** Uhm, that's what this says.

15 **Q.** Yeah. There's two conditions there; right?

16 You either have to modify the source code and develop an
17 independent implementation and you have to use the Java brand;
18 right?

19 **A.** Are you asking me what this says or what I think --

20 **Q.** That's what Oracle told the European Commission in 2009;
21 right?

22 **A.** That is what is in this document.

23 **Q.** All right. And Google never distributed Android as Java
24 compliant, did it?

25 **A.** No.

SCREVEN - CROSS / PURCELL

1 **Q.** And Google never represented to anyone that Android was
2 Java compliant, as far as you know; right?

3 **A.** No, I don't -- not as far as I know.

4 **Q.** Google has never used the coffee cup, right, coffee-cup
5 logo as far as you know?

6 **A.** Not as far as I know.

7 **MR. PURCELL:** One last thing. Let's move on to the
8 section at the bottom of the page. Actually, go to the next
9 page. Sorry.

10 (Document displayed.)

11 **BY MR. PURCELL**

12 **Q.** All right. At the bottom of that page there's a section
13 that says "License Availability." Do you see that?

14 **A.** Yes, I see that.

15 **Q.** And the sentence says, "As discussed below, Sun's licenses
16 impose restrictions relating to compatibility requirements and
17 can incorporate field-of-use provisions to allow Sun to satisfy
18 its obligations under the JSPA to ensure uniformity of the Java
19 implementation for each distinct Java environment."

20 Do you see that?

21 **A.** I see it.

22 **Q.** And then continuing on to the next page, says, "For
23 example, one cannot take a license to Java SE for use in a
24 mobile device since Java SE and Java ME are not compatible."

25 Correct?

SCREVEN - REDIRECT / HURST

1 **A.** That is what it says.

2 **Q.** So you talked in your direct testimony about write once,
3 run anywhere. But you can't write code for Java SE and expect
4 it to run on a Java ME device, can you?

5 **A.** No. But the converse is true. So Java ME is a subset of
6 Java SE, a standard subset of Java SE that allows people to
7 have write once, run anywhere on smaller devices.

8 **Q.** But you can't write it once anywhere and run it on every
9 Java platform, because if you write it for an ME device it
10 won't run on SE, will it?

11 **A.** That's right.

12 **MR. PURCELL:** All right. No further questions.

13 **THE COURT:** All right.

14 **REDIRECT EXAMINATION**

15 **BY MS. HURST**

16 **Q.** Mr. Screven, to your understanding, is Android a, quote,
17 unquote, independent implementation as defined under the spec
18 license?

19 **A.** It's an independent implementation of a subset of the --
20 of the specification. It doesn't comply with the restrictions
21 that are required, that -- that an implementation has to -- has
22 to follow.

23 **MS. HURST:** Trudy, can we get -- Madam Clerk, can we
24 switch back over.

25 Trudy, can we get 610.1 back up there.

SCREVEN - REDIRECT / HURST

1 (Document displayed.)

2 BY MS. HURST

3 Q. All right. Let's look at that second paragraph again.

4 So these are the restrictions that you're referring to?

5 A. Yes.

6 Q. And so what do you mean it doesn't follow those
7 restrictions?

8 A. Well, it doesn't fully implement the spec, for one thing.

9 It doesn't -- and, really, one of the most important
10 conditions, it doesn't implement all of -- of the -- of the
11 API.

12 Q. And what's the significance of that in your mind, sir?

13 A. Well, it means that -- that a programmer who -- who is
14 writing a program in Java, you know, must choose either to
15 program for the Android environment or program for a standard
16 Java environment. So I can't -- I can't have both.

17 Furthermore, you know, of course, because they don't
18 actually implement the full API, they cannot pass the TCK.
19 And, as far as I know, they don't have a TCK license.

20 So that further means that I cannot be assured as a Java
21 programmer that my program will run correctly in both
22 environments. So as an application programmer, I have to pick.
23 I have to pick Android or I have to pick standard Java.

24 Q. And you described on your -- in your prior testimony the
25 way in which these requirements promote competition.

1 Would you explain how the failure to follow those
2 requirements in Android's case has affected competition, in
3 your view?

4 **A.** Yes. Basically, you know, because smartphone
5 manufacturers are creating phones --

6 **MR. PURCELL:** Objection, Your Honor. This is beyond
7 the scope of the cross.

8 **MS. HURST:** He asked about whether Android complied
9 with the license in connection with the EC document, Your
10 Honor.

11 **MR. PURCELL:** I didn't ask about effects on
12 competition.

13 **THE COURT:** I think it's beyond the scope.

14 **MS. HURST:** All right.

15 **BY MS. HURST**

16 **Q.** What, if anything, is your understanding of the
17 consequence of Android's failure to be an independent
18 implementation as defined by the spec license?

19 **A.** It locks --

20 **MR. PURCELL:** Objection. That's the same question.

21 **THE COURT:** Possibly. But you did ask about the --
22 you did ask about that license. So that objection is
23 overruled.

24 Go ahead.

25 **THE WITNESS:** It locks programmers into Android. It

1 means that they can't -- their applications can't run in other
2 environments, other than Android.

3 **MS. HURST:** No further questions.

4 **THE COURT:** Anything more?

5 **MR. PURCELL:** Nothing further from me, Your Honor.

6 **THE COURT:** May the witness be excused?

7 **MR. PURCELL:** Yes.

8 **THE COURT:** Thank you, sir. You're free to go.

9 (Witness excused.)

10 **THE COURT:** Next witness. And while we're bringing the
11 next witness forward, maybe counsel can clear off the witness
12 bench.

13 **MR. SIMPSON:** Your Honor, at this time we ask that the
14 Court read into the record the stipulations the parties have
15 reached.

16 **THE COURT:** That's a great idea. See if I can find
17 it.

18 Are you going to be putting on the screen this big, long
19 exhibit?

20 **MR. SIMPSON:** We can do that if you like.

21 **THE COURT:** I think it would be useful to do that. Is
22 this in evidence, 9223?

23 **MR. SIMPSON:** Not yet, Your Honor.

24 **THE COURT:** Welcome, sir. Just have a seat there, and
25 we'll get to you in a second.

PROCEEDINGS

1 Don't swear in the witness yet. Just have a seat. I'm
2 going to do something here.

3 Is 9223 in evidence?

4 **MR. SIMPSON:** Not yet, Your Honor.

5 **THE COURT:** Any objection to 9223?

6 **MR. KWUN:** No objection.

7 **THE COURT:** All right. Received in evidence. 9223.

8 (Trial Exhibit 9223 received in evidence.)

9 **THE COURT:** Okay. So the lawyers on both sides have
10 come up with a helpful stipulation. I'm going to read it to
11 you first, and then I'm going to give you a slight explanation,
12 and then I'm going to read it again so it will sink in.

13 And up on the screen you can see what this is relating to.
14 Can we -- there are only three or four, five pages. Can you
15 scroll through the pages quickly so the jury will see what the
16 listing is.

17 Now, go back to, say, the first page, and blow up one of
18 them so it will be easier to read.

19 (Document displayed.)

20 **THE COURT:** There we go. Keep that on the screen.
21 That will do.

22 All right. So I'm going to read it first, and then I'm
23 going to come back and read it again.

24 "It is an established fact that 170 lines of declaring
25 code from 62 classes and interfaces in the 37 API packages

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1 at issue are technically necessary to use the Java
2 programming language.

3 "Those 170 lines of declaring code are listed in Trial
4 Exhibit 9223, which is admitted in evidence and which I
5 will now show you on the screen.

6 "Because that declaring code is necessary to use the
7 language, it is established that Google's use of the
8 declaring code in Trial Exhibit 9223 was a fair use. This
9 is without prejudice to evidence that other additional
10 declaring code beyond those lines identified in Trial
11 Exhibit 9223 either was or was not necessary for use of
12 the Java programming language."

13 All right. Now, I'm going to give you a short comment
14 about this so you can -- you'll see where this fits in the
15 overall issue. Then I'm going to read this again.

16 The main issue you, over there, have got to decide is fair
17 use. And you remember we're dealing with 37 API packages. And
18 that breaks down into -- I think it's, like, 6,000 classes.

19 Is that how many it is? How many classes are we talking
20 about? It's a lot of classes. 37 packages, which turns out to
21 be many classes.

22 Well, it turns out that a few of these, it looks like 62
23 classes out of the entirety you can't even write in the
24 language itself unless you have those. It wouldn't work.

25 So both sides are in agreement that as to that group of 62

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1 classes, which is just part of the larger group, that as to
2 those 62 both sides are agreeing that that was a fair use.

3 So what the fight now becomes over is the rest of the 37
4 API packages and whether or not that was a fair use. That's
5 what you've got to decide and they don't agree on. So that's
6 what we mean without prejudice to either it was or was not fair
7 use.

8 All right. I'm going to now read the stipulation again so
9 you will have the benefit of that small explanation --

10 **MS. SIMPSON:** Your Honor, before you read it again,
11 can we have one clarification? The actual number of lines of
12 code is not the full 62 classes, but rather the 170 lines
13 within those classes. So it's not the entirety of each of
14 those classes.

15 **THE COURT:** Okay. But the declaring code is what
16 we're talking about here; right?

17 **MS. SIMPSON:** But it isn't the full class of each of
18 those classes. It's portions of those classes.

19 **THE COURT:** Okay. All right. But the lawsuit is over
20 the declaring code; right?

21 **MS. SIMPSON:** It's pieces of the declaring code. It's
22 not all of the declaring code of those classes either.

23 **THE COURT:** All right. In any event, I guess I see
24 your point.

25 But the parties are in agreement that "170 lines of

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1 declaring code from 62 classes and interfaces and the 37 API
2 packages at issue are technically necessary to use the Java
3 programming language. Those 170 lines of declaring code are
4 listed in this trial exhibit that I just went through. It's in
5 evidence, 9223.

6 "Because that declaring code is necessary to use the
7 language, it is established that Google's use of the declaring
8 code in Trial Exhibit 9223"-- I'm sorry.

9 Who was that hacking and coughing? Would you take this
10 cough drop back there? And I'm going to start all over.

11 **MR. VAN NEST:** Happy to do it.

12 **THE COURT:** I'm going to start all over because
13 somebody in the gallery was interfering with what I was trying
14 to explain. If you're going to do that back there, you have to
15 go outside into the hallway, please.

16 "It is an established fact that 170 lines of declaring
17 code from 62 classes and interfaces in the 37 API packages at
18 issue are technically necessary to use the Java programming
19 language. Those 170 lines of declaring code are listed in
20 Trial Exhibit 9223, which is admitted in evidence.

21 "Because that declaring code is necessary to use the
22 language, it is established that Google's use of the declaring
23 code in Trial Exhibit 9223 was a fair use. This is without
24 prejudice to evidence that other additional declaring code
25 beyond those lines identified in 9223 either was or was not

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1 necessary for the use of the Java programming language."

2 So it's that other group that is still very much in play
3 in our trial and which you are going to have to decide the
4 issue of fair use. Okay. I'm done with reading it.

5 Is that satisfactory to you?

6 **MS. SIMPSON:** Yes, Your Honor.

7 **THE COURT:** All right. Thanks. Go ahead.

8 **MS. SIMPSON:** Oracle calls Dr. Mark Reinhold.

9 **THE COURT:** All right. Dr. Mark Reinhold, please
10 stand and raise your right hand.

11 **MARK REINHOLD, PLAINTIFF WITNESS, SWORN**

12 **THE CLERK:** Please state your name for the Court and
13 spelled your last name for the record.

14 **THE WITNESS:** Reinhold, R-E-I-N-H-O-L-D.

15 **THE COURT:** Have a seat. Make sure the mic catches
16 your voice. You need to pull it a little closer to you. Say
17 your name again.

18 **THE WITNESS:** Mark Reinhold.

19 **THE COURT:** Go ahead.

20 **DIRECT EXAMINATION**

21 **BY MS. SIMPSON:**

22 **Q.** Good morning, Dr. Reinhold.

23 **A.** Good morning.

24 **Q.** Can you tell the jury where you're currently employed and
25 what your job title is.

A. I'm employed at Oracle America and my job title is chief architect of the Java Platform Group.

Q. Can you explain a little bit about what you do in your job as the chief architect?

A. Basically I'm responsible for steering the high-level direction of the Java SE platform from a technical perspective.

Q. And prior to joining Oracle, were you employed by Sun?

A. I was employed by Sun.

Q. At Sun, were you involved with Java?

A. Yes, I was.

Q. How many years have you worked on the Java platform?

A. Almost 20.

Q. During that almost 20 years of working on at Java platform, does that you include API design and implementation?

A. Yes.

Q. Can you tell the jury a little bit about your educational background?

A. I have a Ph.D. in computer science from the Massachusetts Institute of Technology.

MS. SIMPSON: Your Honor, we have some demonstrative evidence we would like to use with this witness. May I display the evidence we would like to mark them for identification as Trial Exhibit 9224.

(Trial Exhibit 9224 marked for identification)

THE COURT: Have you shown them to Counsel.

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1 **MS. SIMPSON:** Yes.

2 **THE COURT:** Go ahead.

3 **BY MS. SIMPSON:**

4 **Q.** Dr. Reinhold, what is the Java platform?

5 **A.** The Java platform is a software development platform. It
6 allows developers to write applications and users to run those
7 applications on a wide variety of computers and computing
8 devices.

9 **Q.** Can you describe for the jury what the three components of
10 the platform are?

11 **A.** Sure. It has three main components. There is the Java
12 programming language, the Java API packages, and the Java
13 virtual machine, which is referred to usually as the JVM.

14 **Q.** Can you give the jury a little detail at a high level as
15 to what each of those components do.

16 **A.** The programming language is the foundational language in
17 which all Java programs and applications are written. So every
18 application developer needs to know that.

19 The Java API packages are essentially a collection of
20 ready-to-use programs that application developers can use when
21 they write their own applications, and it's -- their main
22 purpose is to save them time. They provide lots of rich
23 functionality so developers don't have to write it all from
24 scratch every time.

25 And then finally the J VM, the Java virtual machine, is

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1 what enables the same Java application to run in the same way
2 on different machines.

3 **Q.** What is Java SE?

4 **A.** Java SE is the Java Standard Edition Platform.

5 **Q.** What is Java ME?

6 **A.** Java ME is the Java Micro Edition Platform. You can think
7 of it is as Java SE's little sibling.

8 **Q.** Tell me more about that. What does that mean?

9 **A.** So Java ME was designed in the late 1990s, the early
10 2000s, to fit into very resource-constrained devices where
11 Java SE just wouldn't fit.

12 **Q.** Does Java ME contain some of the same declaring code as
13 Java SE?

14 **A.** Yes, it does.

15 **Q.** Does Java ME contain the same structure, sequence, and
16 organization as Java SE?

17 **A.** Where Java ME contains the same declaring code, it
18 contains the same structure, sequence, and organization.

19 **Q.** Are there any additional packages in Java ME that are not
20 available in Java SE?

21 **A.** Yes.

22 **Q.** As an example, what version of Java SE was used to create
23 Java ME Version 1.1?

24 **A.** Java ME 1.1 was derived from Java SE 1.4.

25 **Q.** And can you give me an explanation of some of the benefits

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1 of Java?

2 **A.** Well, the biggest one really is it allows developers to
3 write an application once and have it be able to run on a
4 variety of platforms. This is what's shown in the diagram
5 here. You write something in Java using the language, the API
6 packages, and you can deliver that to users who can then run
7 it, say, on a Sun computer, on an Apple computer, on a Windows
8 computer or other types of machines.

9 **Q.** Can you explain to the jury what a Java API package is.

10 **A.** An API package, as I said, it's a set of pre-written
11 programs that application developers can use when writing their
12 own applications. They are programs that have been tested.
13 They're well documented, they're designed to be easy to learn
14 and easy to remember.

15 **Q.** Can you give an example of one of the Java APIs for the
16 jury?

17 **A.** So one example would be there is a Java API package for
18 creating secure network connections. If you are writing an
19 application that needs to transmit secure information over the
20 Internet like a credit card number, you don't want snoopers to
21 be able to see that, so there is an entire API package for
22 establishing -- establishing -- for doing what you need to do
23 to transmit that information in a secure fashion.

24 **Q.** Are you aware of what -- which packages are at issue in
25 this lawsuit?

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1 **A.** I believe there is a list of 37.

2 **Q.** And is that the list of 37?

3 **A.** That is the list of 37.

4 **Q.** Can you identify for the jury on this list the package you
5 were just describing, the secure network connection package?

6 **A.** Yeah. The package I was just describing is called
7 javax.net.ssl and it's about a third of the way down in the
8 right-hand column.

9 **Q.** I want to talk a little bit more about the structure of a
10 Java API package. Can you tell us what the main elements of an
11 API package are?

12 **A.** The main kinds of elements that you find in an API
13 package -- working from the top down, at the high level, there
14 is the package itself. A package contains things called
15 classes and interfaces. Classes and interfaces contain things
16 called methods. Classes can also contain things called fields,
17 but it's not just a hierarchical kind of thing. There are also
18 lots of rich cross-connections from one element to another.

19 **Q.** Dr. Reinhold, I would like to show you a poster which has
20 been marked Trial Exhibit 1028. Do you recognize this poster?

21 **A.** Yes, I do.

22 **Q.** What is it?

23 **A.** This poster was created by Sun around the time that
24 Java SE 5 shipped. It was something -- it was something you
25 could buy on Amazon. It -- it tries to -- it depicts, in a

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1 visual notation, the high level structure organization and
2 names of many, but not all, of the Java SE 5 API packages.

3 **Q.** Was this something that was used by developers?

4 **A.** Yes. The intent was that you could order from Amazon, put
5 it up on your wall, and use it as a handy reference when you're
6 writing your own code.

7 **MS. SIMPSON:** I would like to offer this Exhibit 1028
8 into evidence, please.

9 **THE COURT:** Any objection? Hearing none --

10 **MR. VAN NEST:** No objection.

11 **THE COURT:** Received.

12 (Trial Exhibit 1028 received in evidence)

13 **BY MS. SIMPSON:**

14 **Q.** Is the poster a complete representation of the structure
15 and organization of the API?

16 **A.** No, it is not.

17 **Q.** What's missing from the poster?

18 **A.** It doesn't show methods. It doesn't show fields. It
19 doesn't show all of the classes, and it doesn't show all of the
20 packages. If we -- if I tried to put that on the poster, there
21 is just so many complexities, the poster would be gargantuan or
22 the print would be so teeny you wouldn't be able to read it.

23 **Q.** How many packages are in Java SE 5?

24 **A.** Java SE 5 had 166 packages.

25 **Q.** How many classes are in those 166 packages?

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1 **A.** Roughly, 3,500.

2 **Q.** How about methods and field? How many of those?

3 **A.** Roughly 35,000.

4 **Q.** I would like to go back to the slides, Dr. Reinhold. Have
5 you prepared some slides to help explain the structure?

6 **A.** Yes.

7 **Q.** Can you tell the jury what this is?

8 **A.** Sure. So I was thinking about how to explain the -- the
9 rich complexity of the API packages and what they express. And
10 it occurred to me that, well, the API packages are defined by a
11 bunch of text that happens to be written in the Java
12 programming language.

13 We have many examples in the world of other -- other
14 collect -- large bodies of text. One example might be a series
15 of books, and just for the sake of the example, here is a --
16 a -- a photo of the *Harry Potter* series, all seven books in a
17 handy case. You know, at a high level, I think you can think
18 of the API packages as corresponding to -- the -- the entire --
19 set of API packages as corresponding to the series of books.
20 You can think of a particular -- a particular package is one
21 book, which, you know, having designed API packages makes a lot
22 of sense to me because it -- designing an API package from
23 scratch is actually a lot like writing a book.

24 And then going down one more level, if we look at a
25 particular class in a package, here I have identified the class

1 signature on the left. It's in the java.security package. We
2 can think of a class as corresponding to a chapter. And here,
3 just for the example, I have chosen, Chapter 6 of the first
4 *Harry Potter* book.

5 Q. And how do methods fit into your analogy?

6 A. So going down further still, if we look at a method in the
7 signature class, I've shown that there. That's the full Java
8 source code for a method called SignObject. We can think of a
9 method as corresponding to a paragraph in one of the books.

10 Q. And what is declaring code, Dr. Reinhold?

11 A. Declaring code is source code that names and introduces an
12 API element and relates that element to other API elements. In
13 other words, you can say that it communicates to developers the
14 structure and organization of the overall API design.

15 Q. And in your *Harry Potter* exemplifying, what is the declaring
16 code?

17 A. The declaring code on the left is highlighted in yellow.
18 That's the two lines at the very top. And it corresponds --
19 one can think of that as a topic sentence in a paragraph. Just
20 as a topic sentence sets up the paragraph and draws connections
21 to other paragraphs, the declaring code for a method sets up
22 what's needed to understand the rest of the method and relates
23 it to other methods and classes and elements of APIs.

24 Q. In what way is declaring code expressive, if at all,
25 Dr. Reinhold?

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1 **A.** Declaring code is extremely expressive. There are an
2 infinite of number of creative choices necessary to design it
3 well.

4 **Q.** What is the implementing code?

5 **A.** The implementing code in this example is the code on the
6 left that is not highlighted in yellow. The implementing code
7 tells the computer how to perform the action required by that
8 method.

9 **Q.** For the Java API packages at issue in this lawsuit, is the
10 declaring code or the implementing code more important from a
11 developer perspective?

12 **A.** It depends on what kind of developer you are, really.

13 **Q.** And what do you mean by that?

14 **A.** Well, you can take two -- two views of declaring code.
15 You can take the view of an application developer or you can
16 take the view of a developer who actually writes the API
17 package, which is what I do a lot of time. So if you're an
18 application developer, then declaring code is extremely -- is
19 relatively more important.

20 The declaring code is what you have to read. It's part of
21 the documentation. You have to learn it. That's how you learn
22 an API. So it's important that it's -- it's important that the
23 declaring code is designed so that it's easy to learn and
24 remember.

25 As an application developer, you care that the

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1 implementing code is there. You care that it's efficient and
2 does the right thing, but you don't necessarily read it very
3 often, and that's okay. You trust the authors of the API
4 package to have gotten it right.

5 Now, the other case I mentioned was if you're developing
6 an API package itself, well, then you care about both very
7 intensely, but in different ways. The declaring code, as I
8 said, in order for it to be useful to application developers
9 has to be well designed, you have to put a lot of thought into
10 that.

11 The implementing code, you have to make sure that it's
12 correct and efficient. Sometimes the implementing code can be
13 really hard to read, but that's okay because -- as long as it
14 does the right thing and does it efficiently. Application
15 developers will very rarely read the implementing code.

16 **Q.** Do you have an understanding, Dr. Reinhold, of what it is
17 that Google has been found to have copied in the 37 API
18 packages?

19 **A.** Yes. Google has copied the declaring code from all of
20 those packages and the sequence, structure, and organization.

21 **Q.** And in your *Harry Potter* analogy, what does that
22 correspond to?

23 **A.** You could think of that -- in the *Harry Potter* analogy, it
24 would be the titles of the books, the headings on each chapter,
25 the topic sentences of every paragraph, but not just that.

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1 It's also all of the connections drawn between those elements
2 over time. For example, a character could be introduced in one
3 chapter and then referred to, you know, five chapters later,
4 later on. The location could be used in one book and it
5 reappears later on, you know, in -- three books later. There
6 are all these deep connections. It's not just about the
7 hierarchical structure.

8 **Q.** Let's look at the next slide. What is the
9 java.nio.channel package?

10 **A.** So this is an API package which I designed, along with
11 four tightly-related packages. It has to do with high
12 performance input/output.

13 **Q.** And when did you design this package?

14 **A.** Started work on this in the -- about the year 2000, and it
15 shipped in Java SE 1.4 in 2002.

16 **Q.** Is this one of the 37 API packages at issue in this case?

17 **A.** Yes, it is.

18 **Q.** For this API, the java.nio.channel package, did it have to
19 have the particular structure represented up there?

20 **A.** Oh, no. It could have been designed in many different
21 ways.

22 **Q.** Is that the case for the other Java APIs that are on the
23 list of 37? Is it possible to design them in different ways
24 with different declaring codes, structures, and organizations
25 and have them solve the same problem.

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1 **A.** Oh, yes.

2 **Q.** Can you give us an example of how that might work?

3 **A.** So one example would be there is an API package in Java
4 for logging -- logging events. If a program is running for a
5 long time, it can be useful to keep a record of what goes on in
6 it, so an application developer will use an API to create the
7 log messages that are stored somewhere for later analysis.

8 There's an API package in Java SE called

9 java.util.logging. It is one of the packages in dispute.

10 That's one way to do logging.

11 Around the same time, completely outside of Sun
12 Microsystems, some other folks in the community decided they
13 preferred a different approach, so they created an API package
14 called Log4J. It solves essentially the same problems, but the
15 API is almost completely different.

16 **Q.** Let's talk a little bit about the designing process. If
17 you're launching an API designing process, how do you begin?

18 **A.** Well, you -- you -- you begin usually in kind of a
19 confused state, actually. You start out considering well, what
20 are the -- what are the broad problems that we want to solve
21 with the API package, what are the technical limitations of the
22 platform we're using, the hardware it's got to run on, things
23 of that nature.

24 Once you've gone that far, what we often do is collect a
25 set of use cases, which are terse descriptions of more precise

1 kinds of problems that we would want to solve.

2 And then there is often, you know, a long period of
3 brainstorming and writing on white boards and having meetings
4 with colleagues and collaborators. Eventually, you get to a
5 point where you can start writing fragments of declaring code
6 that start to give shape to what will be the API.

7 I started writing fragments of declaring code for this
8 package and the related packages, I don't know, a few months
9 after -- after starting work on it, but it changed immensely
10 over time due to feedback. Once you get that initial declaring
11 code, you get colleagues to review it, you get other people to
12 review it, you get feedback, and then you start writing some of
13 the implementing code so people can actually write sort of toy
14 applications that attempt to solve some of the use cases and
15 they can try to see well, how well does this work.

16 Q. Over the two years you spent working on designing the Java
17 java.nio packages, how many drafts of the API were generated?

18 A. There were about 30 drafts.

19 Q. And you testified you've been working for 20 years in this
20 field designing APIs. Do you consider the process of designing
21 APIs to be creative?

22 A. Oh, it's intensively creative. That's why I like the
23 Harry Potter analogy so much. It really is a lot like writing
24 a book. You have to keep a lot of stuff in your head, and the
25 end result is -- is very, very rich and complex.

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1 **Q.** Can you tell me about some of the creative choices that
2 you make while you're designing an API?

3 **A.** Well, a lot of it is really about figuring out the
4 structures that you want. Just going through the various
5 elements, the kinds of API elements that Java lets you define.
6 You know, first you have packages for the -- for this
7 java.nio.channels package and the four packages related to it,
8 we had to decide well, how many packages should there be. We
9 could have put everything into one package, but that would have
10 been more difficult to learn, so we came up with a division of
11 five.

12 Once we had the rough concepts in our head, we had to
13 decide which classes we wanted, which interfaces we wanted. We
14 had to decide how our classes and interfaces related, is one
15 class a subclass of this one or is it a subclass of that one
16 over there? Does a class implement some interface in this API?
17 Maybe it implements an interface in some other API.

18 And then going down further, you know, there are all the
19 methods. How do the methods relate? For every method, what
20 kinds of inputs does it take? What kind of outputs does it
21 produce? What kind of errors can it report? So methods can
22 also be related to classes and interfaces in that way.

23 **Q.** How would you characterize the typical length of a line of
24 declaring code?

25 **A.** Well, I think that's very hard to characterize. Some are

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1 very short and some are extremely long.

2 **Q.** Can you tell the jury about these examples of declaring
3 code on this slide?

4 **A.** So these are four examples from some of the packages in
5 the 37 in dispute. These are examples of declaring code of
6 four methods. As you can see, there's quite a bit of text for
7 each one. They say -- they say quite a lot. And it took quite
8 a bit of effort to design each one of these, along with all of
9 the other methods and classes and interfaces that they relate
10 to.

11 **Q.** So these are -- these are single declarations on the
12 slide?

13 **A.** Each -- each one of these in the right-hand column -- each
14 line is the declaring code for a particular method.

15 **Q.** And what about names? Are they a creative part of the
16 Java API design process?

17 **A.** Names are certainly a creative part. It's important to
18 choose good names, but it's also important to use judgment.
19 The thing about names is the -- is the shorter the name, the
20 nicer it looks, but there are many fewer short names than long
21 names just because with long names, you have more choices to
22 make. So names are important, but they are not the be all/end
23 all.

24 **Q.** Do you think it's accurate to describe the Java APIs as
25 labels?

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1 **A.** As labels? I think that's laughably simplistic.

2 **Q.** Why do you say that?

3 **A.** Well, a label is just a name. If all we had were names,
4 then we wouldn't need any of the -- of the structure and
5 organization that you actually find in the API packages.

6 **Q.** Is the Java programming language defined by a
7 specification?

8 **A.** Yes, it is.

9 **Q.** And what -- where would you find that specification?

10 **A.** It's actually a book called *The java Language*
11 *Specification*.

12 **Q.** And is that available online?

13 **A.** It is -- most -- most editions of it are available online.

14 **Q.** And do you have Trial Exhibit 984 up there?

15 **A.** No, I have something completely different here. 2237.

16 **MS. SIMPSON:** This is already in evidence, Your Honor.

17 **Q.** Dr. Reinhold, is that a copy of the Java Language
18 Specification?

19 **A.** This is a photocopy -- I'm sure it was quite tedious to
20 make -- of the book, of the Java Language Specification, Third
21 Edition.

22 **Q.** And what version of the Java Language Specification does
23 Java SE 5 require?

24 **A.** It requires this version, the third edition.

25 **Q.** Are the Java APIs part of the Java programming language?

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1 **A.** No, they're not. The APIs -- the APIs and the language
2 are distinct parts of the Java platform.

3 **Q.** Is there any relationship between the Java programming
4 language and the Java API packages?

5 **A.** There is a very narrow, tightly-constrained relationship
6 between the programming language and a small number of classes
7 and interfaces.

8 **Q.** Have you performed any analysis to determine how many
9 classes may be required by the Java programming language?

10 **A.** Yes, I have.

11 **Q.** And I'd like to display Trial Exhibit 9223, which we just
12 admitted. Do you have that in front of you, Dr. Reinhold?

13 **A.** Yes.

14 **Q.** Does this document summarize your analysis?

15 **A.** Yes, it does.

16 **Q.** Dr. Reinhold, have you recently updated your analysis?

17 **A.** Yes, I have.

18 **Q.** And why is that?

19 **A.** Just yesterday, I received an updated report from
20 Dr. Astrachan in which he observed that four methods in the
21 earlier version of this document were missing.

22 **Q.** And what did you do?

23 **A.** So I sat down and redid my analysis, you know, from
24 scratch in a different way, just to be sure. I verified that
25 Dr. Astrachan was correct and that those four methods were

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1 missing from the earlier version. I also identified 12
2 additional methods that are required by the Java Language
3 Specification and were not in the original version of this.

4 **Q.** Can you explain to the jury what each of these two columns
5 represents?

6 **A.** The first column is a list of the classes and interfaces
7 that are required by the Java programming language
8 specification. And then in the right-hand column for each
9 class or interface, there are lines or partial lines of
10 declaring code, and what -- basically the Java Language
11 Specification mandates that one of the -- the thing on the left
12 contain the declaring -- the declaring code or the partial
13 declaring code on the right. But the language specification
14 doesn't say anything else about what the declaring code for
15 that class or interface should be.

16 **Q.** So for the 62 classes and interfaces in this document, how
17 many lines of declaring code did you identify that are
18 constrained by the Java language?

19 **A.** 170.

20 **Q.** And other than being in the book in front of you, the Java
21 Language Specification, Third Edition is there any other way
22 that parts of the Java API could be required by the Java
23 programming language?

24 **A.** No. If it's not mentioned in the book, then it's not --
25 it's not required by the language.

Q. Dr. Reinhold, did Google have to copy the declaring code from the 37 API packages at issue in this case in order to use the Java programming language in Android?

A. Certainly not. All Google had to copy was the declaring code -- the partial bits of declaring code in this document.

MS. SIMPSON: Pass the witness.

THE COURT: All right. Thank you. So let's go to cross.

CROSS - EXAMINATION

BY MR. PURCELL:

Q. Good morning, Dr. Reinhold.

A. Good morning.

13 Q. Dr. Reinhold, you have been working closely with Oracle's
14 lawyers and their paid and retained expert witnesses in getting
15 ready for this trial; correct?

A. Yes.

17 Q. Over the course of this lawsuit, you have had dozens of
18 meetings with Oracle's lawyers to discuss this case; correct?

A. Yes.

20 Q. In fact, just this year, you submitted two separate
21 written declarations in support of Oracle's claims; correct?

A. Correct.

23 Q. You've also worked closely with several of Oracle's
24 specially-retained and paid outside experts; right?

25 A. I -- I wouldn't say closely, but I have worked with them

1 some.

2 **Q.** Well, you're familiar with Dr. Douglas Schmidt, who is one
3 of Oracle's outside experts?

4 **A.** Yes.

5 **Q.** You reviewed and commented on drafts of Dr. Schmidt's
6 expert report before Oracle provided that report to Google,
7 didn't you?

8 **A.** I reviewed it -- reviewed portions of drafts, yes.

9 **Q.** You reviewed portions of at least two or three drafts of
10 Dr. Schmidt's report; correct?

11 **A.** Could be.

12 **Q.** And you also spoke directly to Dr. Schmidt before he
13 finalized his report?

14 **A.** Yes.

15 **Q.** You're also familiar with Dr. Chris Kemerer, who is
16 another one of Oracle's outside retained experts in this case;
17 right?

18 **A.** Yes.

19 **Q.** You reviewed and commented on one draft of Dr. Kemerer's
20 expert report before Oracle provided that to Google?

21 **A.** Yes.

22 **Q.** You also spoke to Dr. Kemerer directly while he was
23 preparing his report?

24 **A.** Very briefly, if I recall correctly.

25 **Q.** And that took place at an in-person meeting you had at the

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1 offices of Oracle's lawyers; right?

2 **A.** Yes.

3 **Q.** And you were at that meeting, along with Oracle's counsel,
4 Dr. Kemerer, and Dr. Schmidt?

5 **A.** Yes.

6 **Q.** And you're also familiar with a company called Keystone
7 Strategies that does litigation consulting and has provided
8 support to Oracle's experts in this case; right?

9 **A.** Yes.

10 **Q.** Keystone has provided behind-the-scenes support for
11 Dr. Schmidt and Dr. Kemerer and another one of Oracle's
12 experts, Dr. Robert Zeidman; correct?

13 **A.** That is my understanding.

14 **Q.** And you've participated personally in meetings with
15 Keystone and Oracle's lawyers, haven't you?

16 **A.** Yes. Very small number.

17 **Q.** You've also participated in coaching Oracle witnesses in
18 the middle of having their depositions taken by Google;
19 correct?

20 **MS. SIMPSON:** Objection, Your Honor.

21 **THE COURT:** Well, if it's true, you can -- you can say
22 so. Overruled.

23 Please answer.

24 **THE WITNESS:** I -- I did provide advice on at least
25 one occasion to an Oracle witness.

1 BY MR. PURCELL:

2 Q. You know an Oracle employee named Donald Smith; correct?

3 A. Yes, I do.

4 Q. That's who we are talking about?

5 A. Well, that's who you are talking about.

6 Q. Well, you agreed with me right that you spoke to him
7 during his deposition, didn't you?

8 A. I did speak with him during his deposition.

9 Q. The last year when Oracle -- or, sorry, when Google was
10 taking Mr. Smith's deposition in this case, you got an
11 emergency call from Mr. Smith and Oracle's lawyers in the
12 middle of that deposition; correct?

13 A. I did receive a call in the middle of that deposition. I
14 don't remember exactly who made the call.

15 Q. And Mr. Smith called you in the middle of the deposition
16 or you were called in the middle of that deposition and
17 informed that Mr. Smith was concerned about some testimony that
18 he had given; right?

19 A. Yes.

20 Q. And Oracle's lawyers needed you to set Mr. Smith straight;
21 right?

22 A. I was asked to explain certain things to Mr. Smith.

23 Q. And you told Mr. Smith what he should say once he got back
24 under oath; right?

25 A. I did not tell Mr. Smith exactly what he should say.

1 **Q.** Well, you told Mr. Smith that he had previously been
2 mistaken and then you told him what the correct information was
3 that he should clarify once the deposition resumed; right?

4 **A.** Essentially, yes.

5 **Q.** Yeah. And once the deposition resumed, Mr. Smith gave the
6 answer that you had told him to give as opposed to the one he
7 had given before; right?

8 **A.** I -- I have not read Mr. Smith's deposition transcript, so
9 I don't know exactly what he said.

10 **Q.** One of Oracle's claims in this case is that Google has
11 unfairly used the structure, sequence, and organization of 37
12 API packages in Java SE; right?

13 **A.** Yes.

14 **Q.** And I'm going to use the abbreviation SSO for *structure,*
15 *sequence and organization.* Is that okay?

16 **A.** Yes.

17 **Q.** All right. Now, you're the chief architect of Oracle's
18 Java Platform Group; right?

19 **A.** No. I'm the chief architect for the Java SE platform.

20 **Q.** All right. Fair enough.

21 You're the chief architect of Oracle's Java SE platform,
22 and Java SE is the platform that contains the SSO that Oracle
23 is suing about; right?

24 **A.** Yes.

25 **Q.** And you've been working on Java for either Sun or Oracle

1 since 1996?

2 **A.** Yes.

3 **Q.** And yet in all those years at Sun and Oracle, you'd never
4 even heard of the term *structure, sequence and organization* or
5 SSO until Oracle filed this lawsuit; isn't that right?

6 **A.** That's correct.

7 **Q.** The purpose of API design is to make APIs easy and
8 intuitive for developers to use; wouldn't you agree with that?

9 **A.** I would say that's -- that's a main goal.

10 **Q.** Now, if it wanted to, Sun could have made the Java SE SSO
11 very simple; correct?

12 **A.** I don't think so, no.

13 **Q.** Well, let me give you a couple of examples. Sun could
14 have chosen to put every single class into one API package,
15 couldn't it?

16 **A.** Yes.

17 **Q.** All right. And Sun could have chosen to put hundreds or
18 even thousands of methods in each class?

19 **A.** Yep.

20 **Q.** And Sun didn't want to do that, and the reason it didn't
21 want to do that is because that sort of SSO would be very hard
22 for developers to learn and use; right?

23 **A.** That's correct.

24 **Q.** And Sun didn't want its APIs to be hard for developers to
25 learn and use?

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1 **A.** On the contrary, Sun wanted them to be easy to learn and
2 use.

3 **Q.** So Sun developed the SSO of the Java APIs based on what it
4 believed would enable developers to learn and use those APIs
5 most efficiently; right?

6 **A.** Yes.

7 **Q.** And in developing an easy-to-use, easy-to-learn SSO for
8 the Java platform, Sun believed that that would enable it to
9 draw more developers to the platform; right?

10 **A.** Yes.

11 **Q.** Now, could we get the list of the 37 API packages on the
12 screen. Do we have the demonstrative? This is good enough.

13 So let me just ask the question, Dr. Reinhold. So there
14 is a package, an API package in Java SE called java.lang;
15 right?

16 **A.** Yes.

17 **Q.** And, in fact, most of the required lines of declaring code
18 that you identified are contained in the java.lang package;
19 right?

20 **A.** That's true.

21 **Q.** That's a package that contains information, methods,
22 classes that are fundamental to the operation of the Java
23 language; right?

24 **A.** It contains -- it contains classes, interfaces, methods
25 and so forth that are more closely related to the Java

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1 programming language than other API packages, generally
2 speaking.

3 Q. And Sun chose the name java.lang for that class because
4 that name would communicate to developers that they could find
5 functions in that package that were closely tied to the
6 language; right?

7 A. Sun chose the name java.lang to convey that these were --
8 to convey that the classes and interfaces in these packages
9 were kind of -- were essentially the core of the platform.
10 These were -- these were the ones you had to learn first. You
11 learned the language. When you learned the language, you
12 learned some, though not all, of the APIs in the Java language
13 package and then you start learning things in other API
14 packages.

15 Q. But that was the purpose of naming that package java.lang,
16 is because Sun wanted to convey to developers that these
17 methods, these classes, were relatively central to the
18 language; right?

19 A. Sun wanted to convey to developers that these were
20 relatively central to the overall platform.

21 Q. And within the java.lang package, there is a class called
22 java.lang.math; right?

23 A. Yes, there is.

24 Q. And in the java.lang.math class, Sun chose to put math
25 functions in that class; right?

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1 **A.** Yes.

2 **Q.** And Sun believed that by using the name java.lang.math,
3 that would logically imply to developers that this was the
4 place they could find math functions; right?

5 **A.** Yes.

6 **Q.** There is another package in Java SE called java.net;
7 right?

8 **A.** Yes.

9 **Q.** Ah, the list is up on the screen. I didn't even know.
10 All right.

11 So this is the list of the 37 API packages at issue here.
12 You see java.net?

13 **A.** Yes.

14 **Q.** All right. And java.net contains network functionality;
15 right?

16 **A.** It does.

17 **Q.** And Sun believed that by giving that package the name
18 java.net, that would convey to developers that this was a place
19 they could find network functionality; right?

20 **A.** That's true.

21 **Q.** They wouldn't have to go hunting for it; they could just
22 look in java.net?

23 **A.** Yes.

24 **Q.** And we see there is also a package up there, java.security
25 at the top of the second column?

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1 **A.** Yes.

2 **Q.** And that package contains security functions; right?

3 **A.** It contains some of the security functions of the
4 platform.

5 **Q.** All right. And Sun wanted to convey to developers by
6 choosing that name that this was a place they could find some
7 of the security functions in the platform; right?

8 **A.** Yes.

9 **Q.** Now, Dr. Reinhold, without APIs, the Java programming
10 language wouldn't be much use, would it?

11 **A.** That's true.

12 **Q.** Without APIs, a Java programmer could write a program in
13 the Java language, but that program couldn't then communicate
14 with a computer monitor so you could even read the output;
15 right?

16 **A.** Correct.

17 **Q.** And without APIs, a programmer could write in the Java
18 programming language, but that program couldn't communicate
19 with a printer so you could print the output; right?

20 **A.** Correct.

21 **Q.** Basically without the Java APIs, you could write a program
22 in Java in isolation, but nothing you wrote could communicate
23 with the outside world at all; right?

24 **A.** No. Without any APIs, you could not write a Java program
25 that communicated with the outside world.

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1 **Q.** Without APIs, the Java language wouldn't be very
2 interesting to use for a programmer, would it?

3 **A.** That's true.

4 **Q.** Now, in addition to the declaring code, the Java API
5 packages also contained implementing code; correct?

6 **A.** Yes.

7 **Q.** In terms of the sheer amount of code in Java SE, the
8 overwhelming majority is implementing code and not declaring
9 code; right?

10 **A.** That's true.

11 **Q.** And you'd agree that to developers, the implementing code
12 in the API packages is equally important as the declaring code,
13 wouldn't you?

14 **A.** No. I would -- I would agree that to developers of API
15 packages, they're equally important.

16 **Q.** All right.

17 Let's play Dr. Reinhold's deposition from, I think it's,
18 March 15, 2016 page 71, lines 6 to 14.

19 **MS. SIMPSON:** No objection.

20 (Whereupon, the video was played for the jury).

21 **BY MR. PURCELL:**

22 **Q.** Dr. Reinhold, Oracle maintains four separate and distinct
23 Java platforms; right?

24 **A.** Yes.

25 **Q.** There is Java ME; correct? That's Java Micro Edition?

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1 **A.** Yes.

2 **Q.** There is Java SE, Java Standard Edition? That's what
3 we're talking about here; correct?

4 **A.** Correct.

5 **Q.** Theres Java EE, which is Java Enterprise Edition?

6 **A.** Correct.

7 **Q.** That's for large devices like big mainframe computers and
8 large servers; right?

9 **A.** Uh-huh.

10 **Q.** Is that "yes"?

11 **A.** Roughly, yes.

12 **Q.** Okay. I'm sorry. The court reporter just can't take down
13 "uh-huh." She needs an audible response.

14 **A.** I'm sorry.

15 **Q.** And then there is Java Card. That's for very small
16 devices like smart credit cards; right?

17 **A.** Yes.

18 **Q.** And each of those Java platforms has different APIs in it;
19 right?

20 **A.** No.

21 **Q.** Different API packages?

22 **A.** There is -- there is a lot of overlap across most of them.

23 **Q.** All right. Fair enough.

24 There is overlap, but each of those platforms contains a
25 different set of API packages; correct?

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1 **A.** Correct.

2 **Q.** All right. And if a program written for one Java platform
3 calls on an API that isn't available in another Java platform,
4 that program won't run; right?

5 **A.** It depends on which combination of platforms you're
6 talking about.

7 **Q.** All right. Let's say a program written in Java SE calls
8 on an API that isn't available in Java ME.

9 **A.** Okay.

10 **Q.** That program won't run on an ME device, will it?

11 **A.** That's true.

12 **Q.** Now, in fact, the write once/run anywhere principle, it
13 just doesn't apply across these four Java platforms; correct?

14 **A.** Indeed it was never meant to.

15 **Q.** Looking just at the Java ME platform, over time there have
16 been different configurations of ME; correct?

17 **A.** Yes.

18 **Q.** The first configuration or one of the early ones was
19 something called the connected limited device configuration or
20 CLDC?

21 **A.** That's correct.

22 **Q.** And that contained a very small number of API packages,
23 just the minimum that were required to run a virtual machine?

24 **A.** I wouldn't characterize it that way, but it was a small
25 number.

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1 **Q.** All right. And then after CLDC came CDC, connected device
2 configuration, and that had more APIs; correct?

3 **A.** I don't recall whether CDC came after or before, but, yes,
4 CDC had relatively more APIs in it.

5 **Q.** All right. And if a program written for a CDC device
6 called on an API that wasn't available in a -- in CLDC, that
7 program wouldn't run on a CLDC device, would it?

8 **A.** That's true.

9 **Q.** And on top of the configurations of Java ME, there is
10 things called profiles; right?

11 **A.** Yes.

12 **Q.** And there's a profile called the mobile information device
13 profile or MIDP?

14 **A.** Yes.

15 **Q.** And then there is different versions of MIDP. There is
16 MIDP2, MIDP3; right?

17 **A.** Correct.

18 **Q.** And each of those profiles has different sets of APIs;
19 right?

20 **A.** That's true.

21 **Q.** And if a program is written for one profile, calls on an
22 API that is not available in another profile, that program
23 might not run; right?

24 **A.** That's true.

25 **Q.** Java ME wouldn't pass any of the compatibility tests for

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1 Java SE, would it?

2 **A.** No.

3 **Q.** And, in fact, Java SE and Java ME are so different that
4 asking whether they are compatible that doesn't even really
5 make sense; correct?

6 **A.** Correct.

7 **Q.** Now, you gave some testimony on direct about how Java ME
8 is supposedly derived from Java SE. Do you recall that?

9 **A.** Yes.

10 **Q.** You're not a lawyer, correct, Dr. Reinhold?

11 **A.** That's true.

12 **Q.** And you're not offering any legal opinion about the
13 relationship between ME and SE?

14 **A.** No.

15 **Q.** The CLDC configuration of Java ME that we just discussed,
16 that was released in May of 2000. Does that sound right?

17 **A.** Could be. I --

18 **Q.** You don't recall?

19 **A.** I haven't memorized any release dates.

20 **Q.** All right.

21 Your Honor, may I approach?

22 **THE COURT:** Yes.

23 **MR. PURCELL:** I would like to hand the witness Trial
24 Exhibit 7782.

25 **Q.** Dr. Reinhold, I would like to --

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1 **MS. SIMPSON:** Your Honor, this exhibit wasn't
2 disclosed.

3 **MR. PURCELL:** It's to refresh the witness'
4 recollection.

5 **THE COURT:** All right. Well, then don't read it out
6 loud. Just read it to yourself.

7 **MS. SIMPSON:** Do you have a copy?

8 **THE COURT:** Ask the question now.

9 **MS. SIMPSON:** Your Honor, may I see the document?

10 **THE COURT:** Of course. Show counsel the document.

11 Have you looked at this as to release dates,
12 Dr. Reinhold, and if so, just close it up because once -- your
13 memory is either refreshed or not.

14 Ask the question again.

15 **BY MR. PURCELL:**

16 **Q.** Does that document refresh your recollection that CLDC
17 configuration was first released in April of 2000?

18 **A.** This you document says when it was registered.

19 **Q.** It says that the copyright was registered in April of
20 2000?

21 **A.** I believe that's what I just read. Maybe I'm incorrect.

22 **Q.** All right. The CDC configuration, you said you didn't
23 recall when that was released, whether that was before or after
24 CLDC?

25 **A.** Correct.

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1 **Q.** It was around the same time?

2 **A.** Could have been.

3 **Q.** All right. Just directing your attention over to the
4 board, the parties have stipulated that Java SE 1.4 platform,
5 one of the works at issue in this case, first came out in
6 February of 2002.

7 **A.** Yes.

8 **Q.** Do you see that?

9 **A.** Yes.

10 **Q.** Isn't it the case that the CLDC and CDC configurations of
11 Java ME both preceded Java 1.4 onto the market?

12 **A.** Their first releases did.

13 **Q.** Okay. The first releases of both CDC and CLDC preceded
14 Java 1.4?

15 **A.** Apparently, according to this, one of them did. I don't
16 know from direct knowledge exactly when the other one shipped.

17 **Q.** But from direct knowledge, do you know that Java ME and
18 the two configurations, CLDC and CDC, those products were on
19 the market before Java SE 1.4 came out in February of 2002?

20 **A.** They could have been.

21 **Q.** Now, you would agree historically that the Java SE
22 platform has been monolithic, wouldn't you?

23 **A.** Yes.

24 **Q.** And by monolithic, you mean that Sun required the
25 implementation of all of the Java SE API packages; correct?

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1 **A.** Yes.

2 **Q.** And before the release of the OpenJDK open source
3 package -- platform, rather there was no way for a third party
4 implementer to pick and choose only the Java SE API packages
5 that he or she wanted to implement; right?

6 **A.** That's true.

7 **Q.** And because the Java platforms were monolithic, that made
8 them large systems that didn't scale down very well; right?

9 **A.** It would all depend on the kind of thing you're trying to
10 scale down to.

11 **Q.** All right.

12 I would like to play Dr. Reinhold's deposition at page 23,
13 lines 14 to 19.

14 **MS. SIMPSON:** Which transcript?

15 **MR. PURCELL:** This is again the March 15, 2016.

16 **MS. SIMPSON:** Page and line number?

17 **MR. PURCELL:** Page 23, lines 14 to 19.

18 **THE COURT:** Let's play it, no objection being heard.

19 (Whereupon, the video was played for the jury)

20 **BY MR. PURCELL:**

21 **Q.** When you saw that the Java platforms didn't scale down
22 very well, you mean that they contained extra functionality
23 that could create complications if you are trying to implement
24 it in a smaller device; right?

25 **A.** They contain -- they contained functionality that would

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1 take up space, and that functionality might not be necessary.

2 **Q.** Right. And the functionality that would take up space and
3 that would be unnecessary, that would be a problem for
4 developers who only wanted to use only those Java SE APIs that
5 would be useful in a mobile device; right?

6 **A.** It would depend on the mobile device.

7 **Q.** But it could create that problem, couldn't it?

8 **A.** It could.

9 **Q.** Before Oracle acquired Sun, Sun had begun to work on a
10 project called One Java; correct?

11 **A.** Yes.

12 **Q.** And the long term goal of One Java was to unify the
13 Java SE and ME platforms; right?

14 **A.** Roughly speaking, that was one of its goals.

15 **Q.** And you were personally involved in One Java?

16 **A.** I was personally involved in a project that supported it.

17 **Q.** All right. Could we look at -- well, we shouldn't look at
18 it first. Let me hand it to you.

19 I would like to approach the witness, Your Honor.

20 Dr. Reinhold, this is Trial Exhibit 7495. Dr. Reinhold,
21 is this an email that you received during your work at Oracle?

22 **A.** Yes.

23 **MR. PURCELL:** I'd like to move to admit Trial Exhibit
24 7495.

25 **MS. SIMPSON:** No objection, Your Honor.

REINHOLD - CROSS / PURCELL

1 **THE COURT:** Received in evidence.

2 (Trial Exhibit 7495 received in evidence)

3 **BY MR. PURCELL:**

4 **Q.** If we could blow up the top.

5 Dr. Reinhold, this is an email that you and others,
6 including Mr. Saab, Oracle's corporate representative, received
7 from a man named Paul Hohensee on November 30, 2010. Do you
8 see that?

9 **A.** Yes.

10 **Q.** Now, in the first paragraph about a third of the way down,
11 Mr. Hohensee writes, "Recall that the original OJ proposal was
12 an attempt to save ME. Unfortunately, it was interpreted as an
13 attack on ME and ignored. It's too late -- it's now too late.
14 ME is, for all practical purposes, dead."

15 You understand that by OJ there, Mr. Hohensee means One
16 Java; right?

17 **A.** Yes.

18 **Q.** And by the date of this email, Oracle had made the
19 decision to terminate One Java; right?

20 **A.** That is true.

21 **Q.** Oracle terminated One Java earlier in 2010, shortly after
22 it acquired Sun; right?

23 **A.** Sometime after it acquired Sun, yes.

24 **Q.** And Oracle didn't replace One Java with any other
25 initiative; correct?

REINHOLD - CROSS / PURCELL

1 **A.** Not with any initiative of the same nature.

2 **Q.** And Oracle decided One Java wasn't consistent with its
3 business goals; right?

4 **A.** I do not know exactly why One Java was terminated. I was
5 not part of that decision.

6 **MR. PURCELL:** Your Honor, I would like to read from
7 Dr. Reinhold's prior sworn testimony, the date of which is
8 April 19, 2012, and page and line number, page 727, lines 5
9 through 8.

10 **THE COURT:** All right. Go ahead.

11 **MR. PURCELL:** (Reading) :

12 **"Q.** Oracle decided that directly addressing the
13 smartphone market in that way through One Java, it wasn't
14 a very interesting -- sorry -- it wasn't a very
15 interesting business idea; correct?

16 **"A.** That was my understanding."

17 Actually, Your Honor, I misspoke. I would like to read
18 from line 5 through line 12 on that page.

19 **THE COURT:** Go ahead.

20 **MR. PURCELL:** (Reading) :

21 **"Q.** Oracle decided to pull the plug on One Java because
22 it did not see the project as consistent with its business
23 goals?

24 **"A.** Yes.

25 **"Q.** Oracle decided that directly addressing the

REINHOLD - CROSS / PURCELL

1 smartphone market in that way through One Java, it wasn't
2 a very interesting business idea; correct?

3 **A.** That was my understanding."

4 **Q.** Later in that paragraph, Mr. Hohensee writes, "OJ was and
5 is our alternative to Android. We totally dropped the ball by
6 not doing it. If we want to get anything from suing Google,
7 we've got to have a product to fill the Android space."

8 Do you see that?

9 **A.** Yes, I do.

10 **Q.** When Mr. Hohensee wrote this email, Oracle hadn't created
11 any product to fill the Android space, had it?

12 **A.** Not to my knowledge.

13 **Q.** And as of today, Oracle still has never created any
14 product to fill the Android space; correct?

15 **A.** That is true.

16 **MR. PURCELL:** Pass the witness.

17 **THE COURT:** Ms. Simpson, do you mind if I ask a couple
18 of questions so you'll have the benefit of whatever I'm going
19 to ask before you ask your questions?

20 **MS. SIMPSON:** Of course, Your Honor.

21 **THE COURT:** All right. Thank you. Hang on one
22 minute. I've got to note down the time. Very brief questions.

23 You have referred several times, and the lawyers, to
24 "calling," "calling a method and API." Is that the right -- is
25 that the right term?

1 I want to clarify for the jury what the right term is when
2 somebody is you actually using the language, wants to use one
3 of the methods in the API, what is the right terminology?

4 **THE WITNESS:** So, Your Honor, when we speak of
5 "calling a method" or sometimes people say invoke, that's when
6 you're writing implementing code and you -- you're basically
7 writing code that instructs the computer okay, now go run this
8 method over there and pass it this information and then receive
9 its results and maybe do something further.

10 **THE COURT:** All right. So if you're writing an app,
11 the word is "invoke" or how about "call"? We have heard --

12 **THE WITNESS:** Calling is perfectly fine.

13 **THE COURT:** "Call," "invoke." Now, in the old days it
14 was something called a command in computer language, but it
15 sounds like that is no longer the right word. So that would
16 not be called a command or is it like a command?

17 **THE WITNESS:** The concept of a command is more
18 commonly found, Your Honor, in -- in simpler languages that are
19 designed for -- for sort of, you know, small programs that just
20 perform a specific function that you need -- need done a few
21 times, not something you would ever bother --

22 **THE COURT:** Like a print command?

23 **THE WITNESS:** A print command, for example.

24 **THE COURT:** But if you wanted to print something using
25 the API, what would it look like? What would that line look

REINHOLD - CROSS / PURCELL

1 like in the developer's code?

2 **THE WITNESS:** So if you wanted to print, say, just a
3 string of text to the console --

4 **THE COURT:** What whatever is a good example.

5 **THE WITNESS:** If you want to just print a string of
6 text so it appears in a console window, the letters you would
7 write would be system.out.println and then you have an open
8 parentheses and then a string or an expression that produces a
9 string --

10 **THE COURT:** Like "let's go to the movie" in quotes and
11 then that would show up on the screen?

12 **THE WITNESS:** That's correct.

13 **THE COURT:** Okay. So that's no longer called a
14 "command" in modern language. That would be called a "call" or
15 "invoking." Tell us what you would call it.

16 **THE WITNESS:** So that overall thing,
17 system.out.println parentheses string semi colon, that in Java
18 is called a statement. It's like a command.

19 The other principle type of implementing code in Java is
20 called an expression. You know, for example, if you were just
21 doing some arithmetic, you have two fields A and B and you add
22 them together, A plus B, that is an expression that returns a
23 result.

24 **THE COURT:** "Statement," "expression." But the
25 statement is quote, "calling" or "invoking" something in the

REINHOLD - CROSS / PURCELL

1 API to print?

2 **THE WITNESS:** Correct.

3 **THE COURT:** Okay. All right. I've got one other
4 question.

5 Oh, here it is. One of the lawyers asked you this
6 question. If you were to move the many, many different methods
7 around so that they were scrambled around and not in the same
8 packages and classes that they're in now but in different
9 packages and classes and let's say they even had different
10 names --

11 **THE WITNESS:** Yes, sir.

12 **THE COURT:** -- but otherwise they were identical, the
13 methods, how would that affect the declaring code? What would
14 you have to do to make it work if you had -- to the line of
15 declaring code?

16 **THE WITNESS:** You would have -- you would have to
17 change every part of the declaring code that mentions some old
18 name to whatever the new name is.

19 **THE COURT:** So the names are actually in the declaring
20 code?

21 **THE WITNESS:** Yes, sir.

22 **THE COURT:** Okay.

23 **THE WITNESS:** Would you like me to use the print
24 example again?

25 **THE COURT:** Yes. Let's do that.

THE WITNESS: So just picture the word system.out.println and then a string, that method could be called "show string." It could be part of a field called "output" and it could be in a class called "console." So instead, you know, in some alternative universe, you would write that as console.output.show string string. But the implementing code would be the same except for all these renames.

THE COURT: All right. And so then the big outline like you're chart would look different with different packages and classes if everything was renamed and reorganized?

THE WITNESS: Yes, sir.

THE COURT: Okay. But you could still do all that with the same function -- overall functionality?

THE WITNESS: Correct.

THE COURT: All right. Thank you. Go ahead,
Ms. Simpson.

REDIRECT EXAMINATION

BY MS. SIMPSON:

Q. Dr. Reinhold, do people in -- at Oracle regularly seek you out for your Java expertise?

A. Yes.

Q. And is that the case, particularly with respect to the technology?

A. Yes.

1 **Q.** Can you explain to the jury why you were consulted by
2 Oracle's experts in this case?

3 **MR. PURCELL:** Objection. Foundation. Also calls for
4 privilege, I think.

5 **THE COURT:** Well, you got into it. I'm going to let
6 Ms. Simpson get into it.

7 Just say why you thought they were calling you.

8 **THE WITNESS:** They called me because I have a lot of
9 technical expertise and understanding of Java's history, having
10 worked on it for most of its existence. And that's all highly
11 germane to this case.

12 **BY MS. SIMPSON:**

13 **Q.** You testified, when you were talking to Mr. Purcell, about
14 whether a computer program could communicate without any APIs.
15 Do you remember that testimony?

16 **A.** Yes.

17 **Q.** And can you explain what you meant when you were
18 emphasizing the word "any"?

19 **A.** What I meant was, at least with the Java programming
20 language, you don't need the Java API packages in dispute in
21 this case. You could write your own. You could write your own
22 API packages for printing to the console, for doing
23 input/output, for doing networking. Everything that is in the
24 37, you could write your own, and then -- and other than those
25 partial 62 that are required by the language, your API packages

REINHOLD - REDIRECT / SIMPSON

1 could be completely different.

2 **MS. SIMPSON:** No further questions, Your Honor.

3 **MR. PURCELL:** Nothing further, Your Honor.

4 **THE COURT:** Okay. Dr. Reinhold, thank you. Have a
5 great day. You are free to go.

6 All right. Who is our next witness going to be?

7 **MS. HURST:** Your Honor, the next witness is Professor
8 Douglas Schmidt, and we need to read in the Zeidman stipulation
9 before Professor Schmidt takes the stand.

10 **THE COURT:** Can we do that and then the jury have a
11 15-minute break and then we'll come back and hear Dr. Schmidt?

12 **MS. HURST:** Good idea.

13 **THE COURT:** Where is the -- I'm sorry. You're going
14 to --

15 **MS. HURST:** I'm going to hand it up, Your Honor.
16 Your Honor, this is ECF 1901.

17 **THE COURT:** Are you going to be able to put this long
18 list on the screen?

19 **MS. HURST:** We were going to put the demonstrative as
20 part of the stipulation on the screen, Your Honor, and while
21 you were reading it or I could read it, however you want to do
22 it --

23 **THE COURT:** I'll read it, but I think it would help
24 the jury to have it. All right. So I'm about to read to you
25 another stipulation that will be useful for the next witness,

1 who is one of these retained experts.

2 "The exhibits to Mr. Robert Zeidman's," Z-E-I-D-M-A-N,
3 "Zeidman's January 8, 2016 expert report partially revised on
4 March 15, 2016" -- wait a minute. That's not the part I'm
5 supposed to read. Where do I start reading? Oh, here it is,
6 down here. I'm sorry. Forgive me over there. I misunderstood
7 the stipulation.

8 Okay. "The parties agree that the Court should read the
9 following statement to the jury. Mr. Robert Zeidman was
10 retained by Oracle to perform a source code comparison. The
11 parties have agreed that Mr. Zeidman shall not testify live in
12 the case." Mr. Zeidman -- how is he going to testify then? By
13 deposition or something?

14 **MS. HURST:** He prepared reports and was
15 cross-examined, Your Honor, and the stipulations will take the
16 place of his testimony.

17 **THE COURT:** Oh, I see. All right.

18 "Mr. Zeidman performed a comparison of the source code
19 from the Java SE 5 platform and various versions of the Android
20 platform. He determined that Google used the following numbers
21 of declaring code statements from the 37 Java API packages in
22 Android." Okay. So now I'm going to read a long list.

23 "Android Gingerbread, API Level 9, 11,578 declaring code
24 statements.

25 "Android Gingerbread, API Level 10, 11,578.

REINHOLD - REDIRECT / SIMPSON

1 "Android Honeycomb, API 11, 11,578.
2 "Android Honeycomb, API Level 12, 11,578."
3 I'm omitting the part about declaring code statements.
4 11,578 declaring code statements.
5 "Android Honeycomb, API Level 13, 11,578.
6 "Android Ice Cream Sandwich, API Level 14, 11,432.
7 "Android Ice Cream Sandwich, API Level 15, 11,432.
8 "Android Jelly Bean, API Level 16, 11,433. 11,433.
9 "Android Jelly Bean, API Level 17, 11,434.
10 "Android Jelly Bean, API Level 18, 11,460.
11 "Android KitKat, API Level 19, 11,470.
12 "Android KitKat, API Level 20, 11,471.
13 "Android Lollipop, API Level 21, 11,475.
14 "Android Lollipop, API Level 22, 11,475."
15 And finally, "Android Marshmallow, API Level 23, 11,457
16 declaring code statements."

17 And have you put that Exhibit A on the screen?

18 **MS. HURST:** It's been on the screen, Your Honor, while
19 you were reading so the jury could make notes, if they wanted
20 to.

21 **THE COURT:** Great. All right. So unless -- I'm not
22 going to reread this unless somebody over there in the jury
23 wants me to reread it. Raise your hand. I think you've got --
24 what I did was go down every single one of the versions of
25 Android at issue in this trial and read out the number of

1 declaring code statements that this witness found was the same,
2 most of them around 11,400 and 500.

3 **MS. HURST:** Your Honor, I misspoke. We have about six
4 minutes of video which we can do before or after the break. I
5 just wanted the Court to know.

6 **THE COURT:** Let's do it after. I promised you a
7 break. Please remember the admonition.

8 (Proceedings were heard out of presence of the jury:)

9 **THE COURT:** Okay. Anything for the judge? Everyone
10 be seated please. Anything for the judge? Anything you need
11 me for?

12 **MR. VAN NEST:** Yes, Your Honor.

13 **MR. KAMBER:** One thing, Your Honor. With respect to
14 Dr. Schmidt's demonstrative, the parties have reached agreement
15 on everything except for one issue, and that is some of the
16 demonstrative slides are argumentative in that they refer to
17 "copied code" and repeatedly kind of emphasize the copied
18 nature, and we would request and have requested that the slides
19 be more neutral and refer to just the use, which is consistent
20 with the --

21 **THE COURT:** Whose expert is this?

22 **MS. HURST:** This is our expert, Your Honor.

23 **THE COURT:** Let me look at it and see.

24 **MR. KAMBER:** I believe it's slides -- it's a little
25 bit later into the deck about --

1 **MS. HURST:** It's not until 9 and 10, Your Honor, that
2 the word "copied" appears.

3 **THE COURT:** It says, "The purpose of the copied APIs
4 is not altered." That's all right. It's not that bad. So I
5 don't think the word "copied" sounds as bad as you think it
6 sounds. I'm not going to -- this fine as is.

7 **MS. HURST:** Thank you, Your Honor.

8 **THE COURT:** You're welcome.

9 **MR. KAMBER:** Thank you, Your Honor.

10 **THE COURT:** Anything else I can help you with?

11 **MR. VAN NEST:** We have one other thing that relates to
12 a witness that comes after Dr. Schmidt.

13 **THE COURT:** Is Schmidt next? I thought we were going
14 to have a video.

15 **MS. HURST:** Yes. About six minutes of video and then
16 Professor Schmidt.

17 **MR. VAN NEST:** And then after him is Mr. Civjan and
18 there are some issues with Mr. Civjan.

19 **THE COURT:** All right. Tell me what the issues are.
20 Everyone be seated over there.

21 **MR. RAGLAND:** There are three exhibits that were
22 disclosed for Mr. Civjan that are 2010 exhibits. One is
23 December 16, 2010. In addition to it being hearsay, it's also
24 403.

25 This was a PowerPoint declaration created after this

1 litigation was filed, finalized after this litigation was
2 filed, that has very inflammatory statements such as "Google is
3 using our IP without a license."

4 It also includes references to a separate dispute that
5 Oracle had with Google related to --

6 **THE COURT:** Stop on that one for a second. If it's an
7 in-house Google document, how can you possibly -- that's just
8 self-serving hearsay? How can you get that into evidence.

9 **MR. BICKS:** Your Honor, I'm happy for you to see the
10 document. These are documents that are prepared. The witness
11 is coming. Has a -- is -- was head of sales and has a
12 responsibility to prepare regular reports on sales information
13 for the company.

14 **THE COURT:** Let me see the document.

15 **MR. BICKS:** The comment that the document was prepared
16 for litigation is completely incorrect. The witness will
17 explain that. And this is a document the witness prepared as
18 part of regularly reporting business activities. And that's
19 what the witness will say. And I will ask the witness did this
20 have anything to do with litigation and he will say no. He
21 will say that --

22 **THE COURT:** Show me --

23 **MR. RAGLAND:** Sure, Your Honor. If you would turn --
24 there are several of them. I'm including ones that show
25 commentary being made to make sure the inflammatory language is

1 the most inflammatory possible, but we'll get to that.

2 In 6431, if you would turn to page 59 of the exhibit,
3 Your Honor. The slide is titled "Consumer Trends." You will
4 see under the second bullet -- are you there, Your Honor.

5 **THE COURT:** Yes.

6 **MR. RAGLAND:** "Google is using our IP without a
7 license and providing platform for free and monetizing through
8 app store." And this was December 2010, months -- four months
9 after this lawsuit was filed. There is an email trail as to
10 one of these documents in July 2010, right before the lawsuit
11 was filed, that shows someone perfecting the language to make
12 sure that -- there is a typo on "feed." They want to make sure
13 it said "free" there.

14 First, they're not created in the normal course. These
15 are slides. They aren't, you know, business records,
16 accounting records. This is a presentation slide, so it's not
17 a business record. It's definitely hearsay because it's
18 internal Oracle. It's also 403, Your Honor, because it's got
19 inflammatory statements.

20 There is also a reference on page 70, Your Honor --

21 **THE COURT:** Look, this is easy. I don't care so much
22 about the inflammatory part, but this an internal
23 self-serving -- it is not a business record. It's just not.
24 It's a presentation made in-house, and it does not come into
25 evidence until -- until you, on the Google side, say like he's

1 just made this up for -- his testimony up for purposes of trial
2 and then he gets to come back and say, "No, I said this back in
3 December of 2010 and here's the proof."

4 So maybe you've got to wait to use it, if the door is
5 opened, on redirect. But I don't know where you lawyers think
6 that things like this when it's your own company that produces
7 them are somehow business records that get into evidence. It's
8 not a business record.

9 **MR. BICKS:** Your Honor, if you just look at the front
10 page of the document, page 2 of it --

11 **THE COURT:** Yeah.

12 **MR. BICKS:** Right? And you see the heading of the
13 document, right, "Java Business Review, Neal Civjan, the
14 vice-president, Java Global Sales," right? Just because the
15 document is a PowerPoint, right, this is the regular type of
16 document that this witness prepares with respect to his
17 business duties in the company. This records information.
18 He's got a responsibility to do so accurately, and it's
19 reported and decisions are made based on the information.

20 **THE COURT:** Look, there is no way this could be -- if
21 we allowed things like this to be put into evidence, then we
22 might as well just bring in wheel barrels full of the company's
23 internal propaganda and just dump it into the jury box. It's
24 all self-serving.

25 No. It's not a business record within the meaning of the

PROCEEDINGS.

1 Rules of Evidence. So I'm sorry. This is just not going to
2 come in unless the door gets opened to it.

3 **MR. BICKS:** Well --

4 **MR. RAGLAND:** Thank you, Your Honor --

5 **THE COURT:** Wait. Wait.

6 **MR. BICKS:** So -- all right. And there are several of
7 these PowerPoints that this witness -- because this is what
8 they do to report. So I'd like to be in a position, because
9 there is real detail on these documents in terms of customers
10 and things of that nature -- I mean, without admitting them
11 into evidence --

12 **THE COURT:** There is a way to use it, maybe, as
13 follows. What's his name again?

14 **MR. BICKS:** Neal Civjan.

15 **THE COURT:** Say, "Mr. Civjan, what's your position?"
16 "Well, I" -- what is his position? Sales?

17 **MR. BICKS:** Head of worldwide sales.

18 **THE COURT:** "I'm head of worldwide sales," and then
19 you say, "Well, to what extent, if at all, did Android become a
20 problem?"

21 "They put us out of business. It was awful."

22 And then he just tells the story live. Even more
23 inflammatory. And then --

24 **MR. VAN NEST:** Move to strike, Your Honor.

25 **THE COURT:** And then if he can't, for some reason,

PROCEEDINGS.

1 remember something, then you say, "Would it help to take a look
2 at one of your sales things to see if it tells you exactly how
3 much you lost?"

4 "Yeah, maybe it would." Then he looks. "Oh, yeah, we
5 lost \$85 billion." You can do that.

6 **MR. BICKS:** Okay.

7 **THE COURT:** But you can't use it as a stand-alone
8 document.

9 **MR. RAGLAND:** I presume, also, Your Honor, he can't
10 look at this, answer the question, look at the -- testify from
11 the document essentially.

12 **THE COURT:** You're not supposed to do that. You're
13 not supposed to do that. Sometimes witnesses get away with it
14 because both sides do it.

15 **MR. RAGLAND:** One other issue that this --

16 **THE COURT:** Both sides haven't been doing it in this
17 case. In other cases, both sides do it. So far this is one
18 thing you haven't done in this case.

19 **MR. RAGLAND:** Thank you. So that relates --

20 **MR. VAN NEST:** Can we underscore that on the record,
21 please.

22 **MR. RAGLAND:** That relates to Exhibits 853, 6431, 6470
23 are the ones that were disclosed for Mr. Civjan.

24 **THE COURT:** I haven't looked at anything but 6431.

25 **MR. RAGLAND:** I have the others --

1 **THE COURT:** If they are in the same category, that's
2 how I'm going to rule.

3 **MR. RAGLAND:** It raises another issue as we were
4 reviewing these. There was a dispute between Oracle and
5 Google. It relates to Java SE embedded that has nothing to do
6 with this case. There are some references in these documents
7 to a dispute with Google, McDonald's, EMC, other companies. I
8 just want to make sure -- I'm not saying that counsel will do
9 this --

10 **THE COURT:** Are you going to get into the embedded
11 thing?

12 **MR. BICKS:** No.

13 **THE COURT:** All right. That's no problem.

14 **MR. RAGLAND:** Your Honor, the last issue relating to
15 Mr. Civjan, there are two documents that relate to some sort of
16 dispute -- these are the two documents I've seen about it -- in
17 Korea that Sun had with wireless standards in Korea. First
18 they're hearsay. I can hand them up.

19 Also I think they are 403. I don't know what the IP
20 protection rights are in Korea or how that relates to wireless
21 standards. So those are Exhibits 6247 and 9198.

22 **THE COURT:** Because of Android, they were having
23 troubles in Korea?

24 **MR. RAGLAND:** No. It has nothing to do with Android.

25 **THE COURT:** Are you going to get into Korea?

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1 **MR. BICKS:** I'm not getting into that.

2 **THE COURT:** Korea is out.

3 **MR. RAGLAND:** Thank you, Your Honor.

4 **MR. BICKS:** There is one exhibit I do want to --

5 **THE COURT:** Let's see the exhibit you want to use.

6 **MR. RAGLAND:** Which one is that?

7 **MR. BICKS:** 9133.

8 This is another exhibit that he's prepared, Your Honor.

9 This is prior to Oracle acquiring Sun when he's been asked to
10 report on what areas the company is in. It's got helpful kind
11 of demonstrative-type exhibits on who were the customers and
12 things of that nature.

13 **THE COURT:** Like this organizational --

14 **MR. BICKS:** Organizational charts --

15 **THE COURT:** I'll let you use the organizational chart.

16 **MR. BICKS:** And, you see, I've highlighted one with my
17 flag there of who the carriers were, who their license partners
18 were, and --

19 **THE COURT:** I'm going to let them use this list here
20 because I have a feeling any of this could be testified to,
21 so -- he's going to testify to all of it right?

22 **MR. BICKS:** Yes.

23 **THE COURT:** All right. No problem with -- the first
24 one that has been tagged, you can use that. And then the next
25 one that has a tag --

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1 **MR. RAGLAND:** Those are pages 10 and 11, correct,
2 Your Honor?

3 **THE COURT:** This one right here, the ecosystem one?

4 **MR. BICKS:** Yes.

5 **THE COURT:** I'll let you use that.

6 **MR. RAGLAND:** We have no objection.

7 **THE COURT:** You've already used it anyway; right? It
8 seems like I saw it before.

9 **MR. BICKS:** One similar.

10 **THE COURT:** And the one that says "compliance," let's
11 see. I don't know. I don't like the -- I think this one is
12 too self-serving, the last one that says "compliance." Did you
13 propose to use that one, too?

14 **MR. BICKS:** I had intended to.

15 **MR. RAGLAND:** We would object to that one, Your Honor.

16 **MR. BICKS:** I mean, I'm going to ask him about it --

17 **THE COURT:** You can ask him about it, but don't -- in
18 other words, ask about the same subject matter, but not show
19 the document --

20 **MR. BICKS:** All right.

21 **THE COURT:** -- to the jury, but if he needs it to
22 refresh his memory, you can use it then.

23 **MR. RAGLAND:** I will point out, Your Honor, we are
24 concerned about this one in particular. It conveniently refers
25 to Skelmir, which is a virtual machine, and Apache, both of

PROCEEDINGS.

1 which were at issue in this litigation. Of course the prior
2 trial was all about the virtual machine and Apache obviously is
3 here. So I would ask that if there is -- this just again --

4 **THE COURT:** I have already said not to show it to the
5 jury on the compliance page, but he can use it to refresh
6 memory.

7 **MR. BICKS:** Understood.

8 **MR. RAGLAND:** And making sure, the bottom there of
9 that page "using our code but not willing to pay" referring to
10 Google, McDonald's --

11 **THE COURT:** Why are you beating a dead horse? I have
12 already said he can't use it.

13 **MR. RAGLAND:** Understood, Your Honor. I want to make
14 sure that it's not used to elicit that because that's the other
15 issue that has nothing to do with --

16 **THE COURT:** Which one is that?

17 **MR. RAGLAND:** The bottom, "using our code but not
18 willing to pay, IPanell, Google, McDonald's," that is completely
19 a different issue, nothing to do with this case. I want to
20 make sure that testimony is not elicited --

21 **THE COURT:** Are you planning to get into that subject?

22 **MR. BICKS:** I'm not going to get into that subject,
23 Your Honor, but this witness is going to be of the view that a
24 license should have been taken and he will testify to it.

25 **MR. RAGLAND:** A license to a product that is not at

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issue in this case should not be elicited --

THE COURT: Look, counsel, Oracle is entitled to have its say in this case, and you don't like to hear them say that you should have gotten a license, but that's what they're going to say, and then you get to bust them on cross-examination. Maybe. Maybe not. We'll see how good the witness is. But I'm not going to go to that point. I'm not going to agree with you on that last point.

MR. RAGLAND: All right. Thank you, Your Honor.

THE COURT: Can we take a few minutes ourselves? Ten minutes. We'll take 10 minutes.

(Recess taken at 11:34 a.m.)

(Proceedings resumed at 11:44 a.m.)

THE COURT: Let's bring in the jury.

(Proceedings were heard in the presence of the jury:)

MS. HURST: Our colleague, Ms. Christina Von der Ahe who hasn't appeared before the jury, is going to introduce these depositions.

THE COURT: Say that again.

MS. HURST: Our colleague, Ms. Christina Von der Ahe, who has not yet appeared before the jury, will do the deposition's wrangling.

THE COURT: Great. So be sure to introduce yourself so that the jury can write down your name when that occurs.

(Proceedings were heard in the presence of the jury:)

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1 **THE COURT:** Welcome back. Please be seated. So
2 what's our next item?

3 **MR. BICKS:** So, Your Honor, we were going to have some
4 very short video clips. Christina Von der Ahe is going to
5 handle that.

6 **THE COURT:** Please come forward.

7 **MS. VON DER AHE:** Good morning. My name is Christina
8 Von der Ahe, and I'm one of the attorneys representing Oracle
9 in this matter.

10 **THE COURT:** Say your name more slowly.

11 **MS. VON DER AHE:** Christina Von der Ahe.

12 **THE COURT:** How do you spell that?

13 **MS. VON DER AHE:** V-o-n d-e-r A-h-e.

14 **THE COURT:** Go ahead. Tell us what you're up here
15 for.

16 **MS. VON DER AHE:** Sorry, Your Honor.

17 We'll present our next three witnesses by short video
18 clips.

19 The first is the videotaped sworn deposition testimony of
20 a Mr. Urs Holzle. U-r-s, H-o-l-z-l-e.

21 At the time of his deposition, he was a Google employee.
22 The deposition was taken on November 24th of 2015. And the
23 questioning attorney was Annette Hurst.

24 **THE COURT:** Very good. Please proceed.

25 (Videotaped deposition of Urs Holzle played.)

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1 **THE COURT:** Done?

2 Okay. Who's next?

3 **MS. VON DER AHE:** The next video witness is Reto
4 Meier. R-e-t-o, M-e-i-e-r.

5 Again, this is a sworn videotaped deposition. The
6 deposition took place on December 11th, 2015. And the
7 questioning attorney was Alyssa Caridis.

8 **THE COURT:** Please, go ahead.

9 (Videotaped deposition of Reto Meier played.)

10 **THE COURT:** All right.

11 **MS. VON DER AHE:** Last one.

12 The next videotaped deposition is the sworn 30(b)(6)
13 deposition of a Mr. Anwar Ghouloum. A-n-w-a-r. Ghouloum,
14 G-h-u-l-o-u-m. He was also a Google employee at the time of
15 his deposition, which took place on December 9th, 2015. And
16 the questioning attorney was Gabe Ramsey.

17 (Videotaped deposition of Anwar Ghouloum played.)

18 **MS. HURST:** Your Honor, that last witness,
19 Mr. Ghouloum, was a 30(b)(6) witness at the time.

20 It may be appropriate to have an instruction explaining
21 that to the jury.

22 **THE COURT:** All right. Just one moment.

23 You know I've told you in the jury box how the lawyers can
24 go and take depositions. And that's a regular deal. You've
25 seen enough of it already.

1 There's a special type of deposition that both sides can
2 take, called a 30(b) (6) deposition. And that is where you say
3 to the other side, when it's a corporation, as both are here,
4 please bring to the deposition somebody who is qualified to
5 speak on the issue of A, B or C, whatever the subject is.

6 It might be how Android works or how Java works, or how
7 much money Android has made for the company or how much it's
8 lost for the company as the case may be.

9 So you specify what the topic is. And then the company
10 has the burden to go figure out who is best able to answer
11 those questions and bring them to the deposition. And then
12 that person is put under oath and gives testimony.

13 So that testimony is deemed to be made on behalf of the
14 corporation, and has extra force because it's made on behalf of
15 the corporation as opposed to just on behalf of that individual
16 talking for themselves.

17 Okay. There you go. 30(b) (6).

18 Next witness.

19 **MS. HURST:** Your Honor, Oracle calls Professor Douglas
20 Schmidt.

21 **THE COURT:** Okay. Are you Dr. Schmidt?

22 **THE WITNESS:** I am, sir, yes.

23 **THE COURT:** All right. Welcome to the court. Please
24 stand somewhere comfortable and raise your right hand.

25

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1 **DOUGLAS SCHMIDT, PLAINTIFF'S WITNESS, SWORN**

2 **THE CLERK:** Please state your name for the Court and
3 spell your last name for the record.

4 **THE WITNESS:** Douglas Craig Schmidt. S-c-h-m-i-d-t.

5 **THE COURT:** Okay. Great. Have a seat. Welcome
6 again.

7 **THE WITNESS:** Thank you.

8 **THE COURT:** And adjust the mic so it will catch your
9 voice.

10 **THE WITNESS:** Okay.

11 **THE COURT:** Please go ahead, Ms. Hurst.

12 **DIRECT EXAMINATION**

13 **BY MS. HURST**

14 **Q.** Would you please introduce yourself to the jury.

15 **A.** Sure.

16 Hi. I'm Doug Schmidt. And I'm a professor of computer
17 science at Vanderbilt University in Nashville, Tennessee.

18 **Q.** And would you describe your educational background,
19 please.

20 **A.** I have a master's degree and Ph.D. in computer science
21 from the university California Irvine, in Irvine, California.

22 And I also have a bachelor's degree and master's degree in
23 sociology from the College of William and Mary in Williamsburg,
24 Virginia.

25 **Q.** How long have you taught computer science?

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1 **A.** I've been teaching computer science courses for about the
2 past 25 years or so, teaching courses on C++, Java, C, many
3 other languages as well.

4 **Q.** Have you had any other professional activities related to
5 computer science?

6 **A.** So I've done many things.

7 I'm a researcher. Written lots of papers, done lots of
8 research on computing.

9 I've taught a number of massive open online courses on
10 topics related to platforms and mobile development and mobile
11 cloud computing.

12 I've written lots of software related to middleware and
13 various types of object-running program platforms.

14 **Q.** And have you ever done anything for the government?

15 **A.** Yes. I was a deputy director and program manager at
16 DARPA, where I led the national effort on research related to
17 distributed computing.

18 **Q.** Have you ever done anything in industry?

19 **A.** Yes. I've been the chief technology officer for several
20 companies and a federally funded research and development
21 center. The FFRDC was the software engineering institute at
22 Carnegie Mellon University. And the two companies were Prism
23 Technologies and Zircon Computing.

24 **Q.** Somewhere along the line did you have something to do with
25 Mars Lander?

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1 **A.** Yes, I worked on NASA's Mars Scientific Laboratory Mission
2 Concept review board, where we ended up putting a truck-size
3 vehicle on the surface of Mars to go and do various
4 experiments.

5 **Q.** All right. As part of all of those things that you've
6 described, do you have any Java experience?

7 **A.** Yes. I've been programming with Java since the middle
8 '90, late '90s, shortly after it first came out.

9 **Q.** And have you actually written any Java programs of your
10 own?

11 **A.** Yes. I've written many Java programs.

12 In '96 to '99, or so, I developed one of the first
13 concurrent network middleware frameworks written in Java,
14 called Java ACE.

15 A little bit later I was involved in helping to codevelop
16 something called Zen, which was an object request broker that
17 was a design for embedded systems and memory-constrained
18 devices.

19 I've also written lots of Java applications for the
20 courses I've taught over the years.

21 **Q.** Professor Schmidt, I'm going to hand you what's been
22 marked as Exhibit 6571.

23 **A.** Thank you.

24 **Q.** By the way, how many publications have you authored?

25 **A.** I've authored upwards of about 575 journals and articles,

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1 and a bit over -- coauthored a bit over ten books.

2 **Q.** Do you recognize Exhibit 6571?

3 **A.** Yes, I do.

4 **Q.** What is it?

5 **A.** It's my curricular vitae, which is basically a summary of
6 my professional accomplishments and my career experience.

7 **MS. HURST:** Move the admission of Exhibit 6571.

8 **MR. KAMBER:** No objection.

9 **THE COURT:** Received.

10 (Trial Exhibit 6571 received in evidence.)

11 **BY MS. HURST**

12 **Q.** All right. Now, you're a retained expert in this case.

13 Oracle hired you?

14 **A.** Yes, that's correct.

15 **Q.** Have you ever served as retained expert before?

16 **A.** No, I've not. This is my first time.

17 **Q.** And this is the first time in front of a jury?

18 **A.** That's correct, yes.

19 **Q.** All right. Did you prepare a report in this matter?

20 **A.** Yes. I prepared several reports.

21 **Q.** All right. And have you created some slides in order to
22 help illustrate your opinions for the jury today?

23 **A.** Yes, I have.

24 **Q.** I'm going to hand you the clicker.

25 **A.** Okay.

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1 **Q.** You're in charge.

2 **A.** Thank you. Appreciate that.

3 **MS. HURST:** All right. Trudy, can I have that first
4 slide.

5 (Document displayed.)

6 **BY MS. HURST**

7 **Q.** All right. What does this slide represent, Professor
8 Schmidt?

9 **A.** This slide provides an overview of the Java platform.

10 Java platform is a environment for developing and running
11 applications on top of a whole bunch of different kinds of
12 computing devices.

13 **Q.** All right. And are you going to tell us a little bit more
14 about each of those parts?

15 **A.** Sure.

16 The three main components I would like to talk about here,
17 each of these components has their only published
18 specification, which basically describes what the component
19 does and its purposes, and in some cases actually provides some
20 declaring code, as we'll talk about.

21 **Q.** All right.

22 **A.** So one part of the platform is the Java Programming
23 Language. And that's the part that provides the basic
24 capabilities, the basic features for writing programs.

25 Another key part of the platform is something called the

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1 Java API packages. The Java API packages are sets of
2 prewritten programs that allow application developers to
3 develop more feature-rich and powerful applications more
4 rapidly and effectively.

5 And the third main part of the platform that has its own
6 specification is the Java Virtual Machine. And the Java
7 Virtual Machine is the execution environment in which these
8 applications actually run.

9 There's also, if you can see, a few other miscellaneous
10 pieces shown, that are part of the platform. Things like the
11 compiler, Java compiler, and disassembler. But their
12 specifications aren't as detailed as the three main components
13 we've talked about here.

14 **Q.** The jury has already heard a lot about this today and
15 during the course of the trial.

16 By the way, have you been here for the trial?

17 **A.** Yes, ma'am.

18 **Q.** All right. So this document was admitted earlier, with
19 Dr. Reinhold, Trial Exhibit 1028. Do you recognize this thing?

20 **A.** I do recognize it, yes.

21 **Q.** What is it?

22 **A.** It's kind of a wall art that provides a thumbnail sketch
23 of many of the packages and some of the classes, a portion of
24 the classes and packages that are part of the APIs in the Java
25 platform.

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1 **Q.** All right. And did you hear Dr. Reinhold testify that
2 this doesn't reflect everything?

3 **A.** Yes, absolutely.

4 **Q.** Now, in your work in this case, did you make an effort to
5 create a diagram that does reflect the Java -- whole structure
6 of the Java SE 5 API?

7 **A.** Yes, I have.

8 **Q.** And what did you create?

9 **A.** So I created something, which is shown on this slide,
10 which is called a software map.

11 **Q.** All right. Would you explain to the jury, what is a
12 software map?

13 **A.** So a software map is basically a way of visualizing the
14 design of the Java APIs in this particular case. You could use
15 it for other things, too, but in this case I'm using this to be
16 able to show the design of the Java APIs.

17 And as we'll see in the software map, it allows us to be
18 able to get a nice bird's-eye perspective on all the classes
19 and all the interfaces, and how they are organized and grouped
20 together.

21 And then we'll see in a few slides how they are related to
22 each other as well. And this is, you will see, a much richer
23 view of the other exhibits. Shows much more of the interesting
24 parts.

25 **Q.** Okay. Is this the first time you've ever used a software

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1 map?

2 **A.** No. I've used software visualization techniques
3 throughout my career. Many of the books I've written have many
4 diagrams that visualize the way in which classes and interfaces
5 and other parts of software are organized and related to each
6 other.

7 **Q.** So this is a standard tool?

8 **A.** Yes, this is a very standard technique.

9 **Q.** All right. So what do we see here on this first part of
10 the map?

11 **A.** The first part of the map, kind of, gives the overall
12 perspective showing all of the classes and interfaces in the
13 Java API, which, as we heard -- as we've learned, there are 166
14 of these packages. And these are all the classes and
15 interfaces that are part of the Java API.

16 This is really just showing the organization, the way
17 things are actually grouped together. We'll see the
18 relationship in just a moment.

19 **Q.** So this is the whole set of classes and interfaces in
20 Java SE 5 API?

21 **A.** Yes, that's correct. This is all the classes and --

22 **Q.** Approximately how many are there?

23 **A.** So there are an awful lot. I think there's in the order
24 of thousands, 3,000 or so classes and interfaces. And there's
25 30,000-plus methods. Many, many methods. Many, many classes

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1 and interfaces.

2 **Q.** Okay. Why don't you continue.

3 **A.** So this diagram here shows an overlay of the 37 API
4 packages at question in this case, and show roughly where they
5 correspond to the various classes and interfaces that are part
6 of the Java API.

7 So this really, kind of, gives a view of how the packages
8 touch or are associated with the classes and interfaces that
9 are part of the overall Java API.

10 **Q.** So is this all of the packages?

11 **A.** No. There's actually 166 total packages. And these are
12 the 37 that are at issue in this case.

13 **Q.** All right. And what do you want to show us next?

14 **A.** So that's, kind of, a big-picture view. And sometimes
15 when you see something from that 30,000-foot level, it's a
16 little hard to get a feel for what's really going on inside.

17 So what I've done here is I've created animation that
18 blows up or expands a particular part of the software map. And
19 this part of the software map shows the various classes and
20 interfaces that are part of the so-called java.util package.

21 Let me just talk a bit about what a class is, and
22 interface in this context. A class is essentially a small
23 program that contains both declaring code and also implementing
24 code.

25 And you'll see that the classes are shown here colored

1 blue. They're kind of the blue circles or blue nodes or blue
2 dots.

3 The interfaces are shown in green. Interfaces are
4 basically lightweight classes that only contain declaring code.
5 There's no implementing code associated with an interface. And
6 that will become important when we get a little bit further
7 along.

8 **Q.** Stop here for one moment.

9 Is this the methods?

10 **A.** No. This diagram does not show the methods.

11 **Q.** And why didn't you show the methods?

12 **A.** If we showed the methods on this diagram, it would be so
13 much information being presented that it would be rather
14 difficult to understand it. It would be just a lot of words on
15 the screen. It would make it hard to see the design. The
16 design essence and design organization and design relationships
17 would be obscured to some extent.

18 **Q.** All right. What's next?

19 **A.** So what I would like to do now is show the relationships.

20 Up to this point, I've shown the classes and the
21 interfaces, how they're organized together. But classes and
22 interfaces are not islands. They don't exist in isolation.
23 They're actually connected together in a very intricate web of
24 relationships. And this diagram starts to show those
25 relationships. In fact, this diagram shows all the

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1 relationships between the classes and interfaces that are part
2 of the Java API packages.

3 **Q.** All right. So what are those gray lines?

4 **A.** So the gray lines are basically the relationships. And
5 we'll talk a bit more. In a second I'll show you a zoomed-in
6 view.

7 But at the high level, these gray lines show relationships
8 between classes. So the classes relate to classes. Interfaces
9 relate to interfaces. And classes relate to interfaces. So
10 it's ways of showing the connection, the interconnected web of
11 relationships between the various elements.

12 **Q.** All right.

13 **A.** What we're really showing here is the design. This is the
14 declaring code. This is the part that's the design element.

15 **Q.** All right. Have you got more to zoom in on?

16 **A.** So now what I'm doing, at long last, is kind of getting
17 into the heart or the core of what we're showing here in terms
18 of details.

19 So I'm zooming in on the java.util package. And I'm
20 showing a particular portion of the java.util package that
21 relates to something called the Java collections framework.
22 And I'll use this as a running example throughout my
23 discussion.

24 So the Java collections framework provides a set of
25 classes and interfaces that allow programmers to store and

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1 retrieve data.

2 Imagine, for example, you have friends in your contact
3 list. And you want to be able to find a friend's phone number.
4 So you could use elements of the collections framework in order
5 to do that.

6 So we're zooming in on just a portion of the Java
7 collections framework and looking in more detail at some of the
8 many classes and many interfaces and their interrelationships.

9 So what you're seeing there is, we have dozens of classes.
10 Those are the blue parts. And there are gray lines connecting
11 them, which means that they're also related to each other.

12 We also see dozens of interfaces, the green nodes. And
13 there's lots of gray lines connecting those pieces.

14 And then there's lots of gray lines that connect the
15 classes and interfaces together as well.

16 The key thing to note about this -- and I'll show you some
17 examples shortly -- is that this diagram represents many of the
18 creative design choices that the people who built the Java APIs
19 had to consider when they came up with this particular way of
20 doing things.

21 Could have looked totally different. They could have had
22 different connections. They could have had different
23 relationships. They could have had different classes,
24 different interfaces.

25 They chose them to be this particular way. But I'll show

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1 you shortly there's lots of other ways of being able to put
2 these things together in order to provide the same purpose.
3 Collections or pretty much anything else that's shown in these
4 software maps.

5 Q. All right. Let me stop you there for a sec.

6 Still, are we seeing the methods?

7 A. The methods are not shown here. We're just looking at a
8 class and an interface in relationship level.

9 Q. So the structure would be even more complex if you
10 included that additional level?

11 A. Absolutely.

12 MR. KAMBER: Objection. Leading.

13 THE WITNESS: Yes, there would be more complexity --

14 THE COURT: It is leading, but it's okay in this
15 instance.

16 BY MS. HURST

17 Q. All right. And, Professor Schmidt, is this java.util
18 package that you're showing here, is that one of the ones at
19 issue?

20 A. Yes.

21 Q. All right. So show us what you've got next?

22 A. So to, kind of, round up this discussion showing the
23 big-picture view and diving a little into the details of
24 classes and the interfaces of this package, I'm going to show
25 you a couple of concrete examples of actual classes that exist

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1 in this particular package.

2 And so what you see here are three classes and their
3 relationships. And also show an interface and its relationship
4 to the class.

5 So we have a class called AbstractList. And you can see
6 from the diagram --

7 Q. Do you have the green pointer on there? Maybe that would
8 help a little bit.

9 A. There we go. So AbstractList is one class. It's called a
10 superclass. And then down below are two other classes, called
11 subclasses.

12 Oops.

13 Q. All right. Hold on. Let's get back there. Take your
14 time.

15 A. There we go.

16 So the abstract list is the superclass. And it's related
17 to two subclasses. ArrayList and Vector. And they add
18 additional capabilities and so on.

19 And the AbstractList actually is also related to the list.
20 So this, again, just gives you a little bit more concrete
21 examples of how the software design are connected together.

22 And one of the things -- we just talked about methods.
23 When you look at the methods, what you find is they are really
24 actually rather small and infinitesimal relative to the overall
25 design structure.

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1 And that's what this diagram does such a nice job of
2 showing. It shows the big-picture view of how the classes and
3 the interfaces, the main elements of the structure, are
4 organized together in the design.

5 The methods appear, but they're much more microscopic. We
6 don't have to show them in order to see the big-picture view.

7 **Q.** All right. Let's go back to the big-picture view then.

8 What -- what then, after examining this map of the Java SE
9 5 API, did you next do?

10 **A.** So what I just showed you was the big-picture view from
11 the Java SE perspective, Java SE APIs, how those things are
12 organized.

13 What I'm going to do now is move to show you how Google
14 copied parts of the design into Android. And that's what this
15 diagram is about to show.

16 So to give you a little context, when I created this
17 diagram, I used a tool, standard software analysis tool, called
18 Understand. Funny name.

19 And it reads through -- I had it read through all the Java
20 source code one file at a time. And every time the Understand
21 tool saw a file, it would look inside the file and would find a
22 class or interface.

23 And it would proceed to look at all the different pieces,
24 all the different elements of declaring code in that class or
25 interface. And it would output into a very, very large file

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1 all these dependencies showing the package name, the class
2 name. It would show the class. Let's say array, or ArrayList
3 or Vector that we just looked at, and a relationship like
4 extends to another class, like ArrayList or AbstractList. So
5 we show the relationships.

6 **Q.** And did you look on the Android side as well?

7 **A.** So I took a report and analysis that was done by
8 Mr. Zeidman.

9 **Q.** The one we heard about in the stipulation earlier?

10 **A.** Yes, yes.

11 So I took his report. He had, as you saw, 11,500'ish
12 copied lines of code. And for every line of code that he
13 identified in his report, I would then mark in this big output
14 which of the relationships that were copied were ones that had
15 come from Android's -- Google's copying into Android.

16 So I ended up with a very large file with certain things
17 marked as being copied.

18 **Q.** All right. Can you show us what kind of a map that
19 resulted in?

20 **A.** Yes. So then I put that through my visualization tool,
21 and that produced this diagram.

22 And what you see here is that all the relationships in the
23 design that were copied are colored in red.

24 **Q.** All right. And what, if any, significance did you take
25 from this mapping of what was copied?

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1 **A.** So there's a couple of interesting things to note here.

2 First thing to note is the copied APIs, the copied
3 classes, the copied interfaces, appear throughout the Java SE 5
4 API packages and classes.

5 So you can see, just looking visually, that they touch
6 many, many different parts of this overall circle. The red is
7 widespread throughout.

8 **Q.** And what -- what significance did you draw from that?

9 **A.** That basically means what's copied is central or
10 important. It shows it's -- the copied APIs are all over from
11 the API packages.

12 **Q.** All right. And did you --

13 **THE COURT:** Can I? Just, I want to mention something.
14 These are just for illustrative; right?

15 **MS. HURST:** Correct, Your Honor.

16 **THE COURT:** All right. The jury doesn't know this
17 yet.

18 When we have retained experts like this, they always show
19 diagrams and things like this. But none of this will be in the
20 jury room. They don't come into evidence. They are -- the
21 evidence is what the witness is saying. That is evidence.

22 But these illustrative diagrams and charts, and things
23 that these experts use, are not in evidence. And they won't be
24 in the jury room.

25 So I bring this up in case you see something that you

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1 think you want to remember, make a note about it. But you will
2 not be -- I wouldn't want you to fail to make a note because
3 you think this is going to be in the jury room. Sometimes
4 jurors get that point of confusion.

5 I really should have said something sooner.

6 So thank you. I'm sorry for the interruption.

7 **MS. HURST:** Thank you, Your Honor.

8 **BY MS. HURST**

9 **Q.** All right. You were saying that, I think -- I don't want
10 to paraphrase, but the red lines reflect the Android pieces,
11 and it's throughout the platform?

12 **A.** That's correct.

13 **Q.** Did you draw any other significance from what you found
14 when you colored in the lines for the Android piece?

15 **A.** Sure.

16 So if you look really carefully at what's colored red,
17 you'll notice that some of the circles, the nodes, are red and
18 some of the links are red.

19 The nodes that are colored red originally were either blue
20 or green. So if there was a blue node that's now colored red,
21 that meant that the class was copied.

22 And what that meant was that Google had copied the
23 declaring code. And then, because it's a class, they provided
24 their own implementation code.

25 On the other hand, if you see something that was colored

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1 green before, that was an interface. And interfaces only have
2 declaring code. There is no implementing code associated with
3 an interface.

4 Q. All right. Explain that a little bit, would you, because
5 I think we did not hear that yet before with Dr. Reinhold or
6 Dr. Astrachan.

7 A. Right.

8 So there's two types of ways of defining things in Java.
9 There's classes, which have declaring code and implementing
10 code; and interfaces, which only have declaring code.

11 And what this diagram shows is that what was copied here
12 by Google was not just the parts that they were eventually
13 going to reimplement, which is the classes, what was also
14 copied were the interfaces, which have no implementations.

15 So they're simply copying them to copy the design
16 structure. This is purely declaring code. Its purpose in
17 life, of an interface, is to provide declaring code that other
18 things will come along and define later.

19 Q. Now, we heard some testimony from Dr. Reinhold that he
20 prepared a chart of parts of the API that should be considered
21 part of the language.

22 And are you familiar with that chart?

23 A. Yes.

24 Q. And are you familiar with the corrected version of that
25 chart?

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1 **A.** I'm also familiar with the corrected version, yes.

2 **Q.** What is the relationship, if any, between that chart and
3 this diagram?

4 **A.** Knowing the sensitivity around the issues of these partial
5 portions of something like 62 classes that -- or interfaces
6 that were part of this -- that were mentioned in the Java
7 Language specifications, we actually did not color any of those
8 classes to be red in this diagram.

9 So this diagram shows copying of the design, excluding the
10 entire classes that are considered to be part -- whose portions
11 of which are considered to be part of the language. So to be
12 conservative here, we just left those out. So those are not
13 shown.

14 **Q.** All right. So this is just the stuff that's not -- that
15 Android copied, that's not on the Reinhold chart?

16 **A.** That's correct.

17 **Q.** All right.

18 **THE COURT:** When you say -- does that include the
19 green ones?

20 You said the red ones were not on that chart. But how
21 about the green ones?

22 **THE WITNESS:** Yes, sir. So anything that's red --
23 green or blue on this chart was not copied. Anything that's
24 red, if it's a circle or if it's a relationship, those are
25 representing things that are copied.

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1 **MS. HURST:** And so -- I think I can help, Your Honor.

2 **THE COURT:** Go ahead.

3 **BY MS. HURST**

4 **Q.** If it was blue or green in the original diagram, and it
5 was also on Dr. Reinhold's chart, then you didn't color it red?

6 **A.** That's correct.

7 **Q.** Okay. So the red stuff is only the stuff that nobody
8 would consider part of the language that was copied into
9 Android?

10 **A.** That's correct. It's the designs, the declaring code.

11 **THE COURT:** But did that part include interfaces?

12 **THE WITNESS:** Copied code did include interfaces. I
13 believe there was 170 or so interfaces that were copied.

14 **THE COURT:** That would be -- and that's not on the
15 Reinhold chart?

16 **THE WITNESS:** If there were interfaces on the Reinhold
17 chart, we would have excluded them here.

18 **THE COURT:** So some of these red things that you say
19 were copied were interfaces?

20 **THE WITNESS:** Yes, yes.

21 Sir, I believe there were 170 interfaces and roughly 620
22 copied classes, give or take.

23 **THE COURT:** All right. Thank you.

24 **BY MS. HURST**

25 **Q.** Did you, having examined your software and the other work

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1 that you did in this case, reach any further conclusions about
2 the relationship of the copied code and Android?

3 **A.** Yes. So I've created some charts to show this.

4 So what I just showed you was a perspective from the
5 Java SE platform. And now what I'm going to do is I'm going to
6 take what we just talked about and show it in the context of
7 Android.

8 So, first, this is a diagram, very familiar diagram
9 showing the layers in Android. As you can tell from the
10 diagram, Android is actually quite similar in many ways to the
11 Java platform. We have -- it's a way of developing and
12 executing apps written in Java across many different types of
13 computing devices, very much like the Java platform.

14 It also has some other things in common. We read all the
15 apps in Java. There's core libraries that have either -- have
16 a portion of the Java APIs. We have a virtual machine that's
17 used to execute this. And there's an operating system that
18 runs on top of the hardware. That's just putting into context
19 what is Android in what I'm about to show you.

20 If we go to the next build, what we see here is where the
21 copied declaring code from the 37 APIs actually appears in
22 Android.

23 And, as you can see, it appears here in something called
24 the Android runtime layer. And more specifically, within this
25 little, looks like a pill or something, inside that, which is

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1 labeled "Core Libraries." And the declaring code from the 37
2 copied APIs exists in that context, inside of those core
3 libraries.

4 **Q.** All right. And did you do anything to test the
5 relationship between the copied code and Android?

6 **A.** So what you can see here, this is actually shown,
7 interesting, in a visual way. The portions of the code that's
8 been copied is actually literally central right in the middle
9 of the platform. And everything that's on top, all the things
10 that are in blue, the application framework, the applications
11 are all very heavily dependent on the declaring code that was
12 copied from the -- by Google into Android.

13 **Q.** Did you perform any tests to try to measure that
14 dependency?

15 **A.** Yes.

16 **Q.** And what did you do?

17 **A.** I conducted a number of so-called platform dependency
18 tests. And that's what these -- this slide shows.

19 So what I did is I wanted to be able to measure the extent
20 to which the copied code was central or necessary in order to
21 be able to use -- in order to be able to use Android. So I did
22 three tests.

23 Test number one took all the packages containing the
24 declaring code and removed the entire package implementation.
25 I took out the declaring code. I took out the implementing

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1 code for all the packages. I tried to build the Android
2 software, and it failed.

3 When it build fails, that means it doesn't turn into
4 something called an image that you could put onto a hardware
5 device and actually use the phone. So it becomes a nice
6 paperweight.

7 The second thing I did is I removed individual packages
8 one at a time. So I took each of the 37 packages, took one out
9 at a time, left all the others, tried to do the build again.
10 Once again, the build failed.

11 The third experiment I did went and removed just the
12 declaring code at sue. This is the code that was copied. So
13 the implementing code that Apache and Google has written
14 remained. And only the declaring code is taken out of all the
15 packages. So now we're just taking out the parts that were
16 copied. Once again, the build failed.

17 **Q.** Okay. And I think Dr. Astrachan testified, well, if you
18 took out any line of code, that's what would happen.

19 Do you have any views on that?

20 **A.** Right.

21 So I also have run experiments where I tried removing
22 individual lines of code. And, now, keep in mind, the
23 individual lines --

24 **MR. KAMBER:** Objection, Your Honor. This is outside
25 the scope of the report.

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1 **THE COURT:** Is that true?

2 **MS. HURST:** Your Honor, there have been multiple
3 reports responsive. And this is our responsive case. So it's
4 in a later report, but this is our responsive case.

5 **MR. KAMBER:** Your Honor, that's a different -- the
6 analysis --

7 **THE COURT:** It's got to be in his initial report. He
8 can come back on surrebuttal.

9 **MS. HURST:** All right, Your Honor. Thank you.

10 **BY MS. HURST**

11 **Q.** Did you also analyze Your Honor -- pardon me, Professor
12 Schmidt, how much code in Android Google wrote?

13 **A.** Yes, I also analyzed that. And I prepared --

14 **Q.** What did you determine?

15 **A.** So this slide is a little bit messed up, but I remember
16 what it is, so I will explain it.

17 **Q.** Let me put it on the ELMO. Looks like we got the wrong
18 one on there loaded up. Can you see that?

19 **A.** Yes.

20 **MR. KAMBER:** Your Honor, this is also from the reply
21 report.

22 **MS. HURST:** Your Honor, it's because we don't have a
23 rebuttal case. They have the burden of proof on this.

24 **THE COURT:** You can have a surrebuttal case.

25 **MS. HURST:** We weren't, I don't think, planning on

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1 doing that past Thursday, Your Honor.

2 This is just to save the witness from having to come back,
3 Your Honor. And Dr. Astrachan --

4 **THE COURT:** He's been here all the time anyway.

5 **MS. HURST:** Dr. Astrachan can respond to it, Your
6 Honor, when he --

7 **THE COURT:** How long is this going to be?

8 **MS. HURST:** Two minutes at the most.

9 **THE COURT:** Was it in the -- was it in the follow-up
10 report?

11 **MS. HURST:** It was.

12 **MR. KAMBER:** In the reply report, Your Honor.

13 **THE COURT:** All right. Well, Google is correct on
14 this. But, nevertheless, I'm going to let you do it. Go
15 ahead.

16 **MS. HURST:** Thank you, Your Honor.

17 **BY MS. HURST**

18 **Q.** All right. What does this show, Professor Schmidt?

19 **A.** So I did some analysis of several versions of Android,
20 where I went in and looked at the source code and analyzed the
21 source code with respect to copyright headers. That's a way of
22 being able to ascertain authorship of who wrote which parts of
23 the code.

24 And what this shows is the results of my analysis. So I
25 searched for names like Google. I searched for names like IBM

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1 or Apple. And I found basically, more or less, who had written
2 the different parts of the code.

3 **Q.** All right. Let me stop you there.

4 **A.** Yeah.

5 **Q.** Can you just run through the percentages for us. Because,
6 as the judge has said, this particular document won't be part
7 of the record.

8 **A.** Sure.

9 So there's 13 percent of the code was unspecified. I
10 couldn't find any copyright headers at all. We just left that
11 unspecified.

12 64 percent of the code had copyright headers from someone
13 else other than Google or affiliates. So this would be, I
14 found IBM copyright headers. I found Apple copyright headers.
15 And so on. I found the Apache license stuff in there. And
16 there was 64 percent of that.

17 And then there was 23 percent that I found that had Google
18 or its affiliates' copyright headers. When I looked into it in
19 a little bit more detail, it turned out about 14 percent of
20 that code was actually code that was code, and about 9 percent
21 of the code were blank lines or comments. So they weren't
22 really code.

23 **Q.** All right. Let me stop you there.

24 So we've heard a lot about how -- and we just saw how
25 Linux is part of the overall platform. Is this including the

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1 Linux lines or not including --

2 **A.** This is not including Linux lines.

3 **Q.** What would happen if you included the Linux?

4 **A.** Linux is massive. Linux has, depending on which version
5 you're looking at, in 2011 Linux had about 15 million lines of
6 code. And all the code we're seeing here is roughly 6 million
7 lines of code.

8 **Q.** So if you added in Linux in the denominator, this number
9 would go way down?

10 **A.** That's correct.

11 **Q.** All right. So when you did this analysis, did you find
12 any Sun Microsystems copyright notices?

13 **A.** No, I did not find any Sun Microsystems copyright notices.

14 **Q.** All right. Have you done --

15 **THE COURT:** Before you leave this.

16 **MS. HURST:** I'm sorry, Your Honor.

17 **THE COURT:** It's confusing on one part.

18 **MS. HURST:** Sure.

19 **THE COURT:** On the big circle, is that all of the code
20 in the Android that's written in Java? Or is it just the
21 declaring lines of code that you say were copied?

22 **THE WITNESS:** Great question.

23 So, sir, this is all the code, declaring lines,
24 implementing lines, Java, C++, C, other stuff. So this is all
25 the whole kit and caboodle of everything.

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1 **THE COURT:** Except for Linux.

2 **THE WITNESS:** Except for Linux, which is largely
3 written in C.

4 **THE COURT:** Thank you.

5 **BY MS. HURST**

6 **Q.** Did you examine whether this -- the purposes, in your
7 opinion, of the Java APIs in Android were comparable to the
8 purpose in other platforms?

9 **A.** Yes, I did.

10 **Q.** All right.

11 **A.** If we can switch back.

12 **MS. HURST:** Trudy, can we switch back? Are we okay
13 now that we have the right ones?

14 (Document displayed.)

15 **THE WITNESS:** Great. So what I did was do an
16 analysis --

17 **MR. KAMBER:** Your Honor, I have an objection to this
18 line of questioning.

19 The disclosure in the report has the analysis of the
20 purpose as against a nonasserted version of Java. And that's
21 what the witness is about to testify about.

22 They removed the text from the slide, but I believe that
23 the witness will be talking about it.

24 **BY MS. HURST**

25 **Q.** Let me just ask. Is this part of your software map that

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1 you did for Java SE 5?

2 **A.** Yes, ma'am.

3 **Q.** This is a subset of that?

4 **A.** It's a snippet. Yes, that's correct, subset.

5 **MS. HURST:** The text was inaccurate. That's why we
6 removed it.

7 **MR. KAMBER:** As long as the witness doesn't testify
8 about nonasserted --

9 **MS. HURST:** We're not going to do that.

10 **THE COURT:** All right. Thank you.

11 **BY MS. HURST**

12 **Q.** What does this show?

13 **A.** So this diagram illustrates the commonality between the
14 Java security package -- which is, as you can imagine, given
15 the importance of security today, an important part of Java.
16 It basically shows that the package design and purpose is the
17 same between Android Gingerbread, in this case, which is one
18 version of Android, and Java SE 5.

19 **Q.** Show us that.

20 **A.** Take a look here. You can see that the design is
21 equivalent. So the same classes exist. The same interfaces
22 exist. The classes being blue. Interfaces being green. The
23 same relationships exist. So they're basically, fancy word,
24 isomorphic. The two graphs have the same structure
25 illustrating the same design.

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1 **Q.** All right. If we think about that from a developer's
2 perspective in the security package, what's the significance of
3 it having the same purpose?

4 **A.** So it would mean that if somebody knew how to use security
5 in Java SE 5, they would also know how to use this in the same
6 way in Android. And, of course, we all know security is
7 important. So that would be a valuable thing to have.

8 **Q.** All right. Have you done any further examinations related
9 to this matter?

10 **A.** Yes. I've also taken a look at how -- there were several
11 full stack operating systems that were used in mobile devices
12 that existed prior to Android.

13 And so the next couple of slides just walk through a
14 couple of examples describing these full stack --

15 **Q.** Let's stop there.

16 On the left, what is this? Savaje?

17 **A.** On the left is a full stack operating system called
18 Savaje. Kind of a funny name.

19 And Savaje was -- I think that it was created around the
20 2002 time frame. And they produced a phone that was shown at
21 the JavaOne Conference in 2006. That's where the "2006" comes
22 from.

23 So it's a full stack operating system that uses Java SE.
24 In fact, it uses all the Java SE packages that are at issue in
25 this case.

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1 **Q.** All right. And so tell us what this diagram shows.

2 **A.** So this diagram illustrates how the architecture, the
3 layers of the Savaje full stack operating system platform for
4 mobile devices were essentially equivalent in terms of purpose
5 to the layers in Android.

6 So as you can see there, both operating systems had Java
7 applications. Both operating platforms had either full Java 2
8 class libraries or partial Java 2 class libraries.

9 Both of them had virtual machines. Both of them had
10 native methods that are used to optimize the performance of the
11 system.

12 **Q.** So that's the pink on the left and the green on the right?

13 **A.** Yes, ma'am. Native methods in both.

14 And they also both run on top of operating system kernels
15 that shield and manage the different resources that are
16 provided by all the hardware computing devices.

17 **Q.** So 2006, you're saying that's Java 2 SE on what kind of
18 device?

19 **A.** So that would have been on a mobile device.

20 **Q.** All right.

21 And what significance, if any, do you draw from this
22 comparison?

23 **A.** So what this says to me is that full stack operating
24 systems were being used running Java SE prior to the release of
25 the Android mobile device, mobile devices.

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1 **Q.** All right. And do you have another example of that?

2 **A.** Yes, I do.

3 **Q.** Show us.

4 (Document displayed.)

5 **THE WITNESS:** So this is another example. This is an
6 example of Java being used in a smartphone prior to the release
7 of Android.

8 And what we see here is something called the T-Mobile
9 Sidekick. This particular version that's shown up here, I
10 believe, was released -- it was the Motorola Q700 phone, I
11 believe, released in around 2007.

12 **MS. HURST:** Your Honor, may I approach to hand the
13 witness a couple of additional demonstratives?

14 **THE COURT:** Sure.

15 **THE WITNESS:** So this phone is the T-Mobile Sidekick.
16 That's the one that's shown on the left.

17 **MS. HURST:** Hold on. We want to make sure we've got
18 the right ones here.

19 **THE WITNESS:** Okay.

20 (Pause)

21 **BY MS. HURST**

22 **Q.** Did we give you the right ones?

23 **A.** I believe so, yes.

24 **Q.** Go ahead.

25 **A.** So this is the Sidekick. This is the one, you can see

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1 it's red. And this is the other one. This is the HTC Dream.
2 This was the first phone that was released that ran Android in
3 the 2008 time frame, as we see on the timeline.

4 And what's interesting about these two phones, aside from
5 the fact they look very similar -- they're very similar form
6 factors. They both have sliders. They both have full
7 keyboards. Both of them were using Java. And both of them ran
8 apps. So you could use email. You could use Web browse. And
9 you could use other kinds of apps, just the same way you could
10 use when the HTC Dream came out.

11 So it basically shows that people were using Java on
12 smartphones prior to the release of the Android hardware in
13 2008.

14 **Q.** All right. Were you here for Mr. Rubin's testimony?

15 **A.** Yes, ma'am.

16 **Q.** And did you hear him testify which version of Java was in
17 Danger?

18 **A.** Yes.

19 **Q.** And what was that?

20 **A.** He said that Danger was running Java 2 SE, which is the
21 same version which is at issue in this case.

22 **Q.** All right. Did you also have some opinions about
23 creativity in the design of the Java APIs?

24 **A.** Yes.

25 **Q.** All right.

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1 **A.** Absolutely.

2 **Q.** What do you have to tell us about that?

3 **A.** So if we think back to the big diagram that shows all the
4 different classes and interfaces, and their relationships, that
5 diagram gave one view on creativity. It showed the intricate
6 Web of relationships that connected all the classes and
7 interfaces.

8 But if you look at that diagram, that kind of raises the
9 question did those interfaces and classes and relationships
10 have to look that way? Or was that the result of creative
11 design that people had to think about very deeply?

12 And this example here illustrates one example -- and I
13 actually have several of them to show here -- of how people had
14 created equivalent capability, equivalent classes, equivalent
15 functionality, and so on, that was available in that diagram we
16 saw, but had completely different design structure.

17 And so the way to illustrate this is by using, once again,
18 the Java collections framework that we were talking about
19 before.

20 So the Java collections framework, if you recall, is the
21 thing that allows you to be able to store and retrieve data
22 that you might have in friends contact list or something.

23 And the java.util package in Java SE has the classes from
24 the Java collection framework. All those classes exist in one
25 package. There's many of these classes. There's dozens and

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1 dozens of them.

2 And around the same timeframe there was another
3 implementation of a collection framework called JGL, the Java
4 Generic Library. J-G-L. Pronounced juggle.

5 And this was created by a company called Object Space.
6 And it did more or less the same kinds of things that the Java
7 collection framework did. It had ways of being able to store
8 data, retrieve data, operate on data, and so on.

9 The difference was it had six packages. It had many, many
10 more classes. And the ways the classes were designed were
11 quite different. They didn't have the same design. They
12 didn't have the same relationships. They had different names.

13 In some cases they had the same names, but the names
14 actually meant different things. Showing, once again, that
15 just because something has the same name, doesn't always mean
16 it has the same purpose or the same meaning.

17 So this is a small example of many examples where
18 different people with different design esthetics, different
19 design sensibilities got together, created different ways of
20 doing the design.

21 And what's important about this -- and there's several
22 other examples shown here as well. There's RogueWave, JTools.
23 There's Doug Lea's Collections Framework. All those are
24 different from Java. All of those are different from JGL, even
25 if they do more or less the same thing.

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1 **Q.** Let me stop you there, because that was fast and a lot of
2 information.

3 So you're saying these are all APIs; is that right?

4 **A.** Yes, these are all APIs.

5 **Q.** And they all ultimately are designed to do the same thing?

6 **A.** They all have, more or less, the same purpose. They store
7 and retrieve data.

8 **Q.** All right. But the -- they're different?

9 **A.** They're very different.

10 **Q.** And these are actually out there in the world?

11 **A.** They are all out there. Some of them came early. Some of
12 them came later. They all came, actually, around the same
13 time.

14 But the key point there is, there was nothing in the Java
15 Language, there was nothing in the Java Language specification,
16 there was nothing in the programmer convention that forced the
17 design of these libraries to have the same structure, sequence
18 and organization.

19 The only thing that made it look the way it did was the
20 degree of creativity and experience of the developers who wrote
21 those classes.

22 **Q.** All right. Would you summarize your opinions for us?

23 **A.** Yes, ma'am.

24 So to summarize my opinions, which I've hopefully showed
25 in my talk, the copying that Google made of the 37 API packages

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1 did not alter the APIs in any way.

2 The APIs are used in Android -- the 37 copied APIs are
3 used in Android for precisely the same purpose that they're
4 used in Java, number one. So they're not altered.

5 Secondly, there were a number of examples, which I've
6 talked through, of full stack operating platforms for mobile
7 devices that existed prior to the introduction of the Android
8 device and the release of the Android device in 2008. So
9 that's one of the opinions.

10 The second opinion, which I've hopefully shown, is that
11 the copied declaring code and design was created -- as we saw
12 with the big circle diagram with all the interesting lines and
13 gray lines and classes, there's a very intricate web of
14 relationships that are woven together. And that web didn't
15 occur by accident. It was very smart, very creative, very
16 dedicated people working a very long time to put all those
17 pieces together in the particular way they put it together.

18 And, moreover, that isn't the only way to do it. There's
19 lots of different ways to do it. The JGL example; the JTools
20 example; Doug Lea's Collections; the Java Collections
21 Framework; the work that I did for three years as professor at
22 Washington University on this thing called Java ACE. It was
23 quite different from other things that came out in Java that
24 did concurrent and network communication. So the only thing
25 that limited me was my creativity and my experience.

The final point I would like to make is that the portions of the Java APIs that were copied are substantial. They appear -- the APIs that are copied appear throughout the Java APIs, the Java API declaring code. Appears all over the place in the Java packages.

And the other thing that I can hopefully show was that part of what was copied had nothing to do with implementation. It was purely copying design structure.

And so these things are crucially important. They are obviously important to be able to have. That's why the design was copied, was to be able to leverage all of that work that had been done to build these APIs for over a long period of time.

MS. HURST: Pass the witness.

THE COURT: Okay. Thank you.

Now, we'll go to cross-examination.

CROSS - EXAMINATION

BY MR. KAMBER

Q. Good afternoon, Dr. Schmidt.

A. Good afternoon, Mr. Kamber.

Q. You first became involved in this litigation in about November of 2015; right?

A. Yes, that's correct.

Q. And you were brought in to help by a consulting firm called Keystone; isn't that right?

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1 **A.** That's correct.

2 **Q.** And you had never worked with Keystone before; correct?

3 **A.** That's correct.

4 **Q.** Okay. But you got help from a number of people at
5 Keystone in connection with your work on this case; isn't that
6 true?

7 **A.** That's correct.

8 **Q.** Okay. You had help from four separate people who are
9 helping you with the reports that you drafted and the opinions
10 that you developed in this case; right?

11 **A.** So I instructed these people to do some work on my behalf.

12 **Q.** Dr. Schmidt, you had help from four different people from
13 Keystone, correct, on your report?

14 **A.** Yes.

15 **Q.** Okay. One of them was Rohit Chatterjee; correct?

16 **A.** That's correct.

17 **Q.** And he's done analysis and work for other experts in this
18 case? Dr. Kemerer; correct?

19 **A.** So I'm not sure if he's done analysis. I know he's been
20 directed to do other work.

21 **Q.** And he's helped out on the reports and the analysis in
22 this case; right?

23 **A.** He's done some things. I'm not sure I worked with
24 Dr. Kemerer.

25 **Q.** But you've met Dr. Kemerer before; right?

1 **A.** Yes.

2 **Q.** Now, you also worked with Greg Richards and Anan Natu
3 (phonetic) at Keystone; correct?

4 **A.** That's correct.

5 **Q.** They helped you with your analysis?

6 **A.** So, again, they did some things at my direction.

7 **Q.** And you worked with another person at Keystone, whose name
8 you couldn't even remember at the time of your deposition;
9 right?

10 **A.** That's correct.

11 **Q.** Do you remember today?

12 **A.** Not really, no.

13 **Q.** You never identified a single individual who was helping
14 you from Keystone in any of the reports that you wrote in this
15 case; isn't that right?

16 **A.** That's correct.

17 **Q.** Now, let's pull up demonstrative 1 that you put up,
18 please.

19 (Document displayed.)

20 **Q.** You have this layer diagram, right, this stack diagram.
21 That's what they call these in the industry; right?

22 **A.** That's right.

23 **Q.** And at the top is the Java Language; right?

24 **A.** That's what it says, yes.

25 **Q.** The Java programming language is free and open for anyone

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1 to use; isn't that right?

2 **A.** I've heard Mr. Ellison say that.

3 **Q.** That's a fact in this case, right, as you understand it?

4 **A.** I've heard him say that.

5 **THE COURT:** It's an important point. Isn't that
6 correct?

7 **MS. HURST:** It's stipulated, Your Honor.

8 **THE COURT:** All right. So the programming language
9 itself is free and open for all to use without license, period.

10 Everybody agree with that?

11 **MR. VAN NEST:** Yes, Your Honor.

12 **MR. KAMBER:** Yes, Your Honor.

13 **THE COURT:** All right. So what's at issue here are
14 these libraries, not the programming language.

15 So go ahead.

16 **MR. KAMBER:** Thank you, Your Honor.

17 **BY MR. KAMBER**

18 **Q.** At the time you did your analysis in this case, it was not
19 your understanding that the Java programming language was free
20 and open for everyone to use; correct?

21 **A.** At the time I did my analysis for this case, I didn't
22 understand the definition of what free and open meant. I have
23 since learned that.

24 **MR. KAMBER:** Can we play the deposition transcript
25 from at 58, 18 through 21, please.

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1 (Video played.)

2 BY MR. KAMBER

3 Q. You understand that sitting in the courtroom today based
4 on your counsel's stipulation; correct?

5 A. I do.

6 Q. Thank you.

7 Now, sitting here today, you understand that the use of
8 numerous declarations has been deemed to be a fair use;
9 correct?

10 A. The use of numerous -- which declarations are you
11 referring to?

12 Q. There were some declarations read into the record. There
13 was an exhibit that Dr. Reinhold talked about. I believe it's
14 9223. I may have the number wrong there.

15 A. The 170 lines --

16 Q. Yes, the 170 lines of declaring code. You remember that
17 from this morning; right?

18 A. I do.

19 Q. Okay. And those 170 lines of code have been deemed a fair
20 use; correct?

21 A. Uhm, if that's been stipulated, then that's what they have
22 been deemed.

23 Q. Well, let me put it this way: Those lines of code, those
24 170, are subject to a technical constraint that is placed on
25 them by the Java language specification; correct?

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1 **A.** Uhm, if that's the way that Dr. Reinhold characterized it,
2 I'm not going to disagree with him.

3 **Q.** You don't have any reason to disagree with that statement;
4 correct?

5 **A.** Uhm, I don't really know what "technical constraint" means
6 in this context.

7 **Q.** Okay. Now, you yourself have sworn that -- well, let me
8 show you Trial Exhibit 5322. I may have missaid that. 5332.

9 **MR. KAMBER:** May I approach, Your Honor?

10 **THE COURT:** Yes.

11 **THE WITNESS:** Thank you.

12 **BY MR. KAMBER**

13 **Q.** Do you recognize 5332?

14 **A.** Yes.

15 **Q.** Okay. And you swore in a report that these were the only
16 declarations that were acquired by the Java Language
17 specification; correct?

18 **A.** That's correct.

19 **Q.** Okay. And you said that you -- you reviewed and
20 independently reviewed this list that you're looking at in
21 5332, and determined that those were the only declarations or
22 lines of declaring code that were necessary to implement the
23 Java Language specification; correct?

24 **A.** That's correct.

25 **Q.** That document lists -- is missing 16 of the declarations

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1 or lines of declaring code that Dr. Reinhold talked about this
2 morning as being necessary to implement the Java Language
3 specification; correct?

4 **A.** Yes, that's correct.

5 **Q.** Okay. So you missed that in your analysis; right?

6 **A.** That's correct.

7 **Q.** Now, let's put up -- well, let me talk about the software,
8 now, that you were showing the jury.

9 A software tool called D3 was used to create that
10 visualization; correct?

11 **A.** Yes, that's correct.

12 **Q.** And you said on direct that you put it through the
13 visualization tool. Do you remember saying that?

14 **A.** That's correct.

15 **Q.** Okay. But it actually wasn't you; right?

16 **A.** It was done by one of the members of Keystone.

17 **Q.** It wasn't you; right, Dr. Schmidt?

18 **A.** It was done under my direction.

19 **Q.** Did you actually, as you testified on direct, put it
20 through the visualization tool?

21 **A.** No.

22 **Q.** Okay. Now, it was actually done by somebody at Keystone;
23 right?

24 **A.** That's correct.

25 **Q.** And, in fact, you don't even own a copy of the software

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1 package D3 that was used to create that visualization; right?

2 **A.** D3 is not something you own. It's a Web service that you
3 access via your browser.

4 **Q.** But you've never used it before this case either?

5 **A.** I've looked at it before, sure.

6 **Q.** You've looked at it. You've never used D3 prior to this
7 case; right?

8 **A.** That's correct.

9 **Q.** You didn't use it in this case either. It was Keystone
10 that used it in this case?

11 **A.** That's right.

12 **Q.** You called it "standard" on direct. But it's never been
13 something that you used?

14 **A.** It's -- in the reading I've done, it's a very popular tool
15 that's commonly used to visualize software.

16 **Q.** But not by you?

17 **A.** That's correct.

18 **Q.** Okay. There's nothing -- well, excuse me.

19 **MR. KAMBER:** Let's put up the visualization.

20 **BY MR. KAMBER**

21 **Q.** The first step of your analysis actually involved using a
22 different software program called Understand.

23 **A.** Yes.

24 **Q.** You mentioned that; right?

25 **A.** That's right.

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1 **Q.** And every time Understand sees a class, it looks through
2 and it finds the things that that class uses; correct?

3 **A.** It analyzes the contents of the class and then takes the
4 contents piece by piece -- other extensions, interfaces,
5 dependencies, and so on -- and it goes ahead and does what's
6 called a search, to find all the dependencies that that class
7 source code relies on in the rest of the source code.

8 **Q.** Right. One class will rely on another; correct?

9 **A.** That's correct.

10 **Q.** There are dependencies between and among the Java APIs and
11 the classes there; right?

12 **A.** They're relationships.

13 **Q.** They're relationships. It's a web, as you described it;
14 right?

15 **A.** That's right.

16 **Q.** They're not an island?

17 **A.** That's right.

18 **Q.** No API is an island; right?

19 **A.** Some APIs are actually islands, but not many.

20 **Q.** Okay. So this is a map of the dependencies. That's what
21 you were talking about; right?

22 **A.** You mean --

23 **Q.** The petri dish we were looking at before?

24 **MS. HURST:** I'm going to object. That
25 mischaracterizes the witness's testimony.

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1 **THE COURT:** "Petri dish"?

2 (Laughter)

3 **MS. HURST:** No, whether this shows the dependencies,
4 Your Honor.

5 **THE COURT:** I thought it was the other one, with all
6 the lines.

7 **MR. KAMBER:** Right. Let's go to slide -- I believe
8 it's 6 or -- why don't we go to 7.

9 (Document displayed.)

10 **BY MR. KAMBER**

11 **Q.** You say here at the top, right, "Relationships between
12 classes and interfaces" --

13 **A.** That's correct.

14 **Q.** -- right?

15 This is called a force-directed graph model; right?

16 **A.** The D3 visualization tool uses something called
17 force-directed graphs in order to be able to show the
18 visualizations displayed on there.

19 **Q.** And you created it for this litigation; right?

20 **A.** Created what?

21 **Q.** The force-directed graph visualization that you called the
22 software map?

23 **A.** Actually, the D3 tool created the visualization.

24 **Q.** But you're presenting it here in court; right?

25 **A.** That's right.

SCHMIDT - CROSS / KAMBER

1 **Q.** And the reason you had to do it was because nobody -- you
2 couldn't find it out there. Nobody had represented the Java
3 API using a visualization or a software map like this before;
4 right?

5 **A.** I actually don't know whether anybody has ever done it
6 before. Seems like a reasonable thing to do.

7 **Q.** The way that Sun described and showed its API to people
8 and developers in the community was via this Exhibit 1028;
9 right (indicating)?

10 **A.** That's a develop -- an application developer's limited
11 perspective. This is what the application package developers
12 would have understood.

13 **Q.** This is what -- how Sun published the APIs so that
14 developers would understand how to use it and which packages go
15 where?

16 **A.** That's not published APIs. That's something you would put
17 up as wall art, on your wall, to show that.

18 **Q.** Dr. Schmidt, this is a list of the APIs. And this is how
19 Sun presented that list to developers; right?

20 **A.** It may be one way. But it's not the entirety of the list.

21 **THE COURT:** Can I ask a question about that?

22 **MR. KAMBER:** Sure.

23 **THE COURT:** You two just referred to that poster board
24 as APIs plural. But I thought it was just one API. What is
25 the correct terminology?

SCHMIDT - CROSS / KAMBER

1 **THE WITNESS:** Well, we would have to count them all,
2 sir. But I suspect that there's probably a hundred-plus APIs.
3 Each of the things that are kind of brown are a separate API or
4 an API package. So there's API packages. And inside of those
5 API packages are going to be APIs.

6 **THE COURT:** So --

7 **THE WITNESS:** So there's lots of them.

8 **THE COURT:** So that whole thing is not one interface,
9 but a bunch of interfaces?

10 **THE WITNESS:** Many, many, many, many. But interface
11 actually has a specific term. So they're what's called APIs,
12 because there's an interface and a class.

13 **THE COURT:** All right. Next.

14 **BY MR. KAMBER**

15 **Q.** There's nothing in the 20-year history of Java that
16 depicts the APIs the way that you did with the software map;
17 right?

18 **A.** I don't know one way or the other.

19 **MR. KAMBER:** If we could bring up the slide on the
20 build tests, please. It is slide number 10.

21 (Document displayed.)

22 **BY MR. KAMBER**

23 **Q.** Now it was also Keystone employees, not you, who carried
24 out the build tests; right?

25 **A.** Working under my direction, yes.

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1 **Q.** You don't actually know who at Keystone did the build
2 tests?

3 **A.** Yes, I do.

4 **Q.** Well, who was it?

5 **A.** Rohit Chatterjee.

6 **MR. KAMBER:** Can we roll the video, please, of
7 Dr. Schmidt's deposition, starting at page 146, lines 9 through
8 15. I'm sorry. We don't have that queued up.

9 Let me read that into the record, Your Honor.

10 **THE COURT:** Question and answer.

11 **MR. KAMBER:** Absolutely.

12 **"Q.** With respect to the build tests, again who performed
13 those tests?

14 **"A.** So those tests were performed under my supervision by
15 Keystone. But -- but who actually ran the computer that
16 performed the tests? Oh, I'm not sure exactly who, who
17 ran that."

18 **BY MR. KAMBER**

19 **Q.** Was that your testimony?

20 **A.** That was.

21 **Q.** In any event, you testified about three different
22 scenarios that you did; right?

23 **A.** That's correct.

24 **Q.** And I believe you called them dependency tests; right?

25 **A.** Platform dependency tests.

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1 **Q.** Platform dependency tests.

2 In the first platform dependency test, you removed all of
3 the 37 packages; correct?

4 **A.** All the declaring code and implementing code, yes.

5 **Q.** Right.

6 Even though the implementing code isn't at issue in this
7 case, you removed it in that test; right?

8 **A.** That's correct.

9 **Q.** Okay. In the second scenario you removed the declaring
10 code and the implementing code from a single package; correct?

11 **A.** One package at a time.

12 **Q.** One package at a time. But there you were also removing
13 implementing code even though it's not accused in this case;
14 right?

15 **A.** That's also correct.

16 **Q.** Okay. And in the third you removed declarations,
17 individual declarations; right?

18 **A.** That's correct.

19 **Q.** Okay. And, now, based on the -- the build tests, you
20 concluded that the removal of those code lines were fatal to
21 Android's operability; right?

22 **A.** I'm sorry, what was the --

23 **Q.** Based on your build tests, you concluded that the removal
24 of those code lines was fatal to Android's operability;
25 correct?

SCHMIDT - CROSS / KAMBER

1 **A.** That's correct, yes.

2 **Q.** Okay. In fact, you suggested their removal was of greater
3 consequence than the removal of other code; correct?

4 **A.** That's correct.

5 **Q.** You arrived at that conclusion based on the build tests;
6 correct?

7 **A.** Uhm, various things.

8 The platform dependency tests were part of that basis of
9 my conclusion.

10 **Q.** But that's not really what these build tests demonstrate,
11 is it, Dr. Schmidt?

12 Removing a single line of declaring code from any one of
13 the Google-developed Android packages in those code libraries
14 would also cause a build failure; correct?

15 **A.** No, that's not correct.

16 **Q.** It is correct -- well, you tried that with the
17 pingsupplicant method in Android 5.0; correct?

18 **A.** That's one of the things I tried, yes.

19 **Q.** You removed the declaring code for pingsupplicant in
20 Android 5.0, and it wouldn't build; correct?

21 **A.** So that's one of the tests. I did other tests.

22 **MS. HURST:** Your Honor, I tried to get into this on
23 direct, and Counsel objected that it was beyond the scope. And
24 now he's doing it on cross. And that just doesn't seem fair,
25 Your Honor.

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1 **MR. KAMBER:** Your Honor, she is absolutely welcome to
2 do redirect on this. But unless and until I open the door,
3 it's not her turn to do it.

4 **THE COURT:** I mean, it is a little -- why did you
5 object to her going into it if you were going to do it anyway?

6 **MR. KAMBER:** Because I actually wasn't sure that
7 Mr. Schmidt would disagree with me on that point. I thought he
8 wouldn't.

9 **THE COURT:** All right. Go ahead.

10 **MR. KAMBER:** Okay.

11 **THE COURT:** We've got about two minutes.

12 **MR. KAMBER:** Thank you, Your Honor.

13 **BY MR. KAMBER**

14 **Q.** To actually -- you actually changed the methodology that
15 you applied in order to get it to build when you did these
16 other tests that you're referring to; correct?

17 **A.** No.

18 **Q.** You removed the entire method when you were able to get it
19 to build by taking out entire Android packages; correct?

20 **A.** That was one of the tests I did, but not all of them.

21 **Q.** None of the tests that you're referring to right now are
22 disclosed in your reports; correct?

23 **A.** That's correct.

24 **Q.** Okay.

25 **THE COURT:** Is this a good place to break for the day?

PROCEEDINGS

1 **MR. KAMBER:** It is, Your Honor.

2 **THE COURT:** All right. We're going to break here. I
3 think we're on track for ending the evidence on Thursday,
4 ladies and gentlemen of the jury.

5 Please remember the admonition. Thank you for your very
6 close attention. See you tomorrow morning.

7 (Jury out at 12:59 p.m.)

8 **THE COURT:** Be seated. The witness can step down.
9 You've got to be back tomorrow morning. And you're still on
10 cross-examination, so no talking with lawyers.

11 **THE WITNESS:** Okay.

12 **MR. VAN NEST:** Your Honor, I assume the rule of no
13 contact on cross applies to experts.

14 **THE COURT:** Yes. That's what I just said.

15 **MS. HURST:** Yes, that's a fair assumption, Your Honor.

16 **THE COURT:** I have a question for you. Maybe -- if
17 you don't want to answer this because the witness is still in
18 the room, I can -- but what is your answer to the interfaces
19 having nothing but declaring code and no implementing code, and
20 you copied them anyway?

21 At least that's what the witness said.

22 Anyone on the Google side want to answer that question?

23 **MS. HURST:** Professor Schmidt, why don't you leave the
24 room for this.

25 (Witness exits courtroom.)

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1 **THE COURT:** All right. So I'm just curious. I'm
2 learning as I go.

3 Do you know the answer?

4 **MR. VAN NEST:** I don't, Your Honor. We're finding
5 out.

6 **THE COURT:** Does anyone over there know?

7 **MR. VAN NEST:** Mr. Kwun may know it.

8 **THE COURT:** Call on Mr. Baber.

9 (Laughter)

10 **MR. KWUN:** Your Honor, the interfaces define certain
11 functionality that is then implemented elsewhere. And if it's
12 not defined in the interfaces and people are expecting it, then
13 code won't work.

14 When people invoke -- you can, for example, have an
15 interface. There is an interface called "comparable." And
16 comparable indicates -- if you apply that interface to another
17 class, that means that the class has the feature of being
18 comparable.

19 And so what it means to have the feature comparable is
20 that there are things that can -- are greater than or less
21 than. It can be sorted.

22 So members of that class, there is one that is greater
23 than the other.

24 So you can have a sort routine that then says, I am a
25 general purpose sort routine. I will work with any class that

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1 has the feature of being comparable.

2 So there's going to be code out there that then makes use
3 of this feature, this well-known feature. And that
4 functionality, if it was not replicated in Android, then that
5 functionality would not be available to programmers.

6 So even though there is no actual implementation in the
7 interface itself, the interface itself defines -- so, for
8 example, "comparable" is an interface when it defines certain
9 methods that must be available in any class that is declared as
10 having the comparable feature.

11 And then all of those methods -- excuse me, all those
12 classes that are declared as comparable will have implementing
13 code for the declarations --

14 **THE COURT:** Are you saying it's like incorporation by
15 reference?

16 **MR. KWUN:** It's -- I suppose you could think of it
17 that way. It's kind of -- it's kind of the reverse.

18 It's telling you what you're going to have to have
19 elsewhere as opposed to saying -- it's the headings that you're
20 going to incorporate by reference, rather than the contents.
21 But it's similar.

22 **THE COURT:** All right. Did you want to say anything,
23 Ms. Hurst.

24 **MS. HURST:** I think Professor Schmidt's testimony
25 stands. And the point of interfaces is to reproduce the

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1 structure and relationship within and among those classes, Your
2 Honor.

3 And that is quite significant in terms of the
4 substantiality of this copying in relation to the design of the
5 Java API and what developers would be familiar with, and
6 reducing the friction, to use Mr. Rubin's term, in getting
7 people to sign on to the Android platform.

8 **MR. KWUN:** And, Your Honor, there actually were briefs
9 filed by the parties at your request about -- I believe it was
10 a couple of topics, but one of them was: What are interfaces
11 and how should they be dealt with in this case?

12 That was during the first trial. It was -- I can't
13 remember exactly, but maybe a week or two before your
14 copyrightability ruling.

15 And I would be happy to get the docket numbers if that
16 would be helpful. I don't have them quickly at hand.

17 **THE COURT:** No. I can look them up.

18 All right. Anything the lawyers need the judge for before
19 we take our break today?

20 **MR. BICKS:** Your Honor, I don't know, in terms of just
21 efficiently using time, if I had, say, 20-plus exhibits that
22 the parties stipulated to moving into evidence, in terms of
23 what would be the best time to do that and not waste time.

24 **THE COURT:** Well, if you can all agree to do it --

25 **MR. BICKS:** Yeah.

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1 **THE COURT:** Have you got an agreement right now?

2 **MR. BICKS:** Yes.

3 **THE COURT:** All right. Let's do it right now.

4 **MR. VAN NEST:** It's my understanding we needed to do
5 this in front of the jury, Your Honor. That's why I did it.
6 We did all ours before the jury. That's what I had understood
7 your rule was. But it doesn't matter to me.

8 **THE COURT:** If that's what you've been doing then --

9 **MR. VAN NEST:** That's what I did.

10 **THE COURT:** -- at an appropriate point tomorrow just
11 stand up, say, "I move these in." Give the list slowly enough
12 that I can write it down. And then Mr. Van Nest says,
13 "Admitted."

14 **MR. VAN NEST:** That's right.

15 **THE COURT:** All right. Is that it for today?

16 **MR. VAN NEST:** I think so, Your Honor.

17 We benefit from -- we didn't get your time count after
18 yesterday. And I'm not sure on the videos whether there's any
19 Google time in there.

20 **THE COURT:** Well, on the three that -- I have nine
21 minutes. I kept track. It was nine minutes total on your --
22 that's the way mine actually came out in real life. And I'm
23 charging all that to you unless you tell me some of it went to
24 the other side.

25 **MS. VON DER AHE:** Your Honor, the parties have agreed

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1 it's 80 us, 20 them.

2 **THE COURT:** All right. So that's going to be 7 for
3 you and 2 for them. That's rough justice.

4 **MS. VON DER AHE:** Okay.

5 (Laughter)

6 **THE COURT:** Okay. We're done? All right. We're
7 still on track to finish the evidence on Thursday?

8 **MR. VAN NEST:** I think so, Your Honor. But, again --

9 **THE COURT:** How many experts do you have in rebuttal?

10 **MR. VAN NEST:** Experts in rebuttal, probably two.

11 **THE COURT:** Who are they going to be?

12 **MR. VAN NEST:** Possibly more. Professor Astrachan and
13 Dr. Leonard.

14 **THE COURT:** Have we heard from him yet?

15 **MR. VAN NEST:** Not yet.

16 **THE COURT:** How many more experts do you have?

17 **MR. BICKS:** We've got very brief testimony from
18 Dr. Kemerer. And then we've got Dr. Jaffe, our economist.

19 **THE COURT:** So we'll get to all that tomorrow, do you
20 think?

21 **MR. BICKS:** You know, if not tomorrow, we've got
22 Mr. Page Thursday morning. And you know we've got a few more
23 witnesses. So whether or not --

24 **THE COURT:** We might not finish, then, on Thursday.

25 **MR. VAN NEST:** Your Honor, what we did agree to with

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1 Mr. Page, he will be available first thing in the morning on
2 Thursday.

3 If there's a long expert that's carrying over from
4 Wednesday night, Counsel have agreed to interrupt so we can get
5 him on and off Thursday morning. But he'll be here and
6 available first thing in the morning.

7 **THE COURT:** Fine.

8 **MR. VAN NEST:** And --

9 **MR. BICKS:** And we're still trying to work out
10 Mr. Mazzocchi. Your Honor may remember --

11 **THE COURT:** What's the problem with him? Oh, he's the
12 guy "This is illegal."

13 **MR. BICKS:** He said it was illegal. And then he said
14 that -- that Oracle's IP was being ripped off. We found
15 another email to that effect.

16 And we're trying to see if we can work out a stipulation.
17 And where we're having -- I'm hopeful we can work it out so we
18 don't have --

19 **THE COURT:** Wasn't he under subpoena?

20 **MR. BICKS:** He's under subpoena. But just to save
21 time. But we -- I'm just saying we're trying to work that out.

22 **THE COURT:** Well, that would be great. But don't let
23 it slide. Make sure he's here. Because if he's not here on
24 Thursday and we rest, that's too late.

25 **MR. BICKS:** Mr. Van Nest has assured us he will be

1 | here.

THE COURT: All right. See you tomorrow. Thank you.

MR. VAN NEST: Thank you, Your Honor.

4 **THE COURT:** Oh, I haven't done the math. It would
5 take me five minutes to do the math right.

MR. VAN NEST: Just send it out, Your Honor.

THE COURT: I'll try to send it out.

MR. VAN NEST: Send it out. Thank you.

9 (At 1:08 p.m. proceedings were adjourned until Wednesday,
10 May 18, 2016.)

CERTIFICATE OF REPORTERS

13 We certify that the foregoing is a correct transcript
14 from the record of proceedings in the above-entitled matter.

15 | DATE: May 17, 2016

Katherine Sullivan

Katherine Powell Sullivan, CSR #5812, RMR, CRR
U.S. Court Reporter

Pamela A. Batalo

Pamela A. Batalo, CSR No. 3593, RMR, FCRR
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